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The Practical Application of Trusses.

Part of a lecture delivered at the Kansas Medical College.

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Gentlemen :—

The most of the trusses are made by workmen who have no knowledge whatever of the anatomy of the parts, the force and direction of force to be applied or the results to be obtained. This will account for the many inefficient trusses in the market.

The best of all supports for hernia is the fingers; with them you may gauge the amount of force applied, in the proper direction. The nearer, then, gentlemen, that the truss comes to the action of the fingers, the nearer you have an ideal truss. Surgeons for many years have given the subject some thought; many manufacturers have attempted to supply the want of a proper truss, but the ideal has not yet been reached. There are three important things that every truss should posses: First, adaptability; second, durability; and third, simplicity. When you have these three, combined in a truss, you then have an economical appliance, it matters not what the cost. You have been told in your books and by your teachers that it is well to take the shape of the body with a leaden tape, this is done for the purpose of getting the shape of the pelvis, so that when you have sent it to the manufacturer of the truss, he can shape the spring to fit the body. This is a decided disadvantage in any truss, from the fact that we now have in market a truss that any of you can fit without sending to the manufacturers. This truss I will describe later on.

All trusses you are aware, gentlemen, are fitted with a pad; these pads are made of various materials, and in various shapes. The hard pad being, as far as I am acquainted, the favorite one of the surgeons. It is made of wood, rubber, celluloid or any other hard material. It has the advantage over the skin covered pads in the fact that it is perfectly smooth; therefore not so likely to irritate the skin, and absorb moisture from the body; thereby becoming, as it were, aseptic.

There are other pads made that are elastic, and, in order to make them elastic they are hollow pieces of rubber filled with air or water; or they are made of a composition that is elastic.

The elastic is used on persons of delicate skin, and often on old people, and those cases that are unable to wear the hard pad.

A pad in order to be effective should be fashioned to fit the particular case; not too oval, and just large enough where the bearing surface touches the skin, to a little more than cover the opening of the internal abdominal ring; and sufficiently long to make pressure the entire length of the inguinal canal.

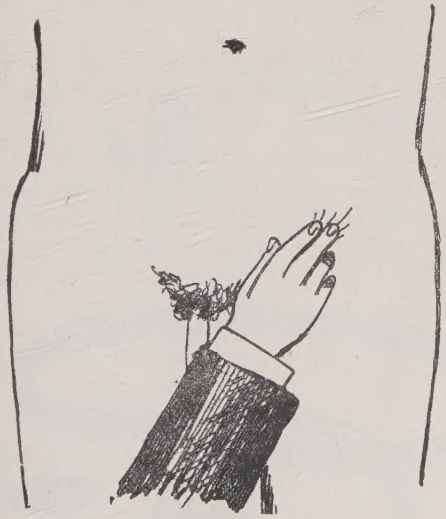

FIG. 1.—*Application of the fingers. The easiest way to hold a rupture.*

If the pad be too small, or the pressure too

great, there is danger of a thinning of the tissues, as well as a dilatation of the opening

If the pad be too large, it is liable to make pressure upon the spermatic vessels. The most of the trusses have the pad, as ordinarily adjusted, in the wrong direction; the thickest portion being downward, and the thin portion upward; this in the majority of cases ought to be reversed, because you will discover, gentlemen, that after a rupture has been reduced, you will be able to hold the intestines back more easily by placing your hand with the fingers pointing upward (Fig. 1) than with them pointing downward (Fig. 2.)

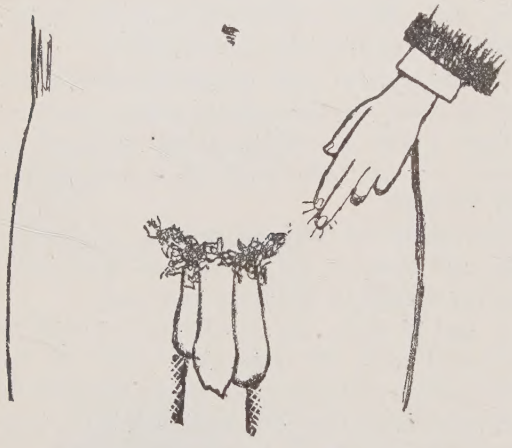

FIG. II.—*Application of fingers—the hardest way to hold a rupture.*

The spring of the truss is usually covered with celluloid, rubber, or some other material, that is impervious to moisture, to save the steel from rusting. This, while it is an advantage in durability of the instrument, is also a disadvantage, from the fact that the spring is made stiffer, and harder to adjust.

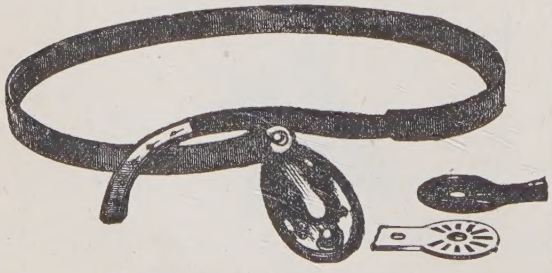

FIG. III—*Set Screw Truss.*

We have connected then to the spring, the pad,—which among the better class of trusses is attached with the ball and socket joint, (Fig. III), and the ratchet; the purpose of the ball and socket joint is, that you may readily adjust the pad to any angle desired. The ratchet is, as I show you, attached to the arm and to the end of the spring, and is for the purpose of giving different angles, if so desired, to the arm.

I describe this truss because it is the one truss from which nearly all others take their shape.

I will now proceed to show you the defects of this truss. As you will see, this arm is for the purpose of raising above the point to which you apply the pad, the spring sufficiently high so that by any flexion of the thigh upon the body the spring may be out of the way, and not be displaced by muscular action.

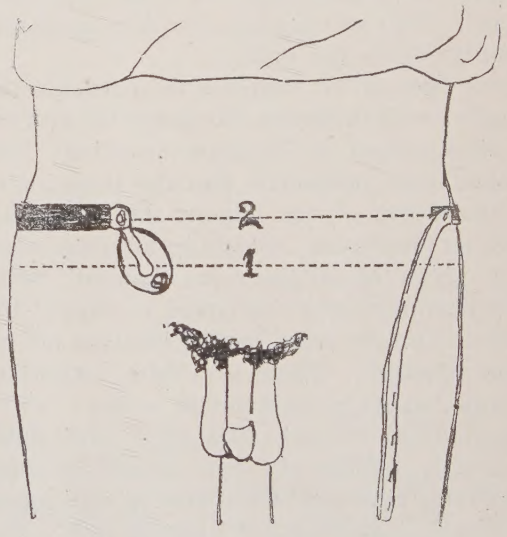

FIG. IV.—1, *line on which pressure should be applied.* 2, *line where pressure is applied.*

While this serves the purpose, yet it unfortunately raises the spring above the point to which the force ought to be applied (Fig. IV). As you will see, the spring goes entirely around one side and crosses back right to the opposite side.

Now even if this spring should fit the body perfectly, you will at once observe that the

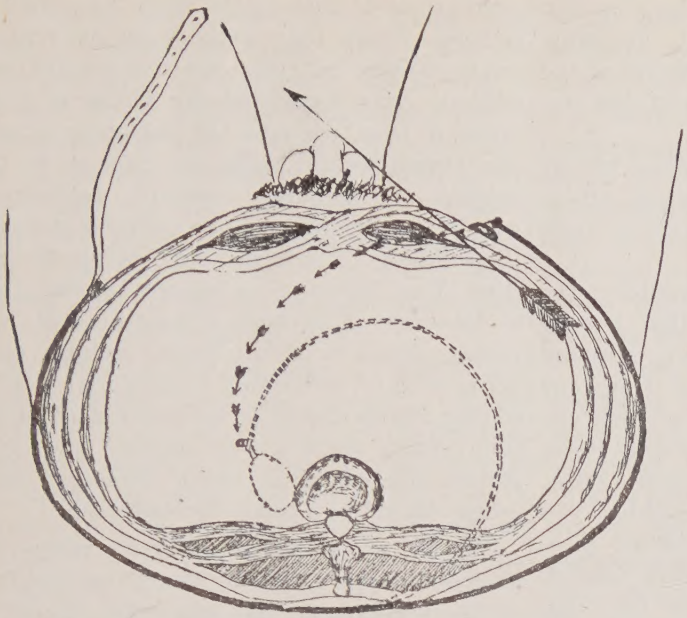

FIG. V.—*Transverse section—Dotted lines indicate shape of Truss before application—arrows indicate direction of pressure when applied. The long arrow indicates the approximate direction of the escape of the viscera—showing that the pressure is across the inguinal canal and not upward, outward and inward as it should be.*

pad receives its pressure from the point of the spring farthest from it; therefore instead of receiving the pressure up and backwards, along the inguinal canal, the pressure is in an almost entirely opposite direction (Fig. v.)

It also has a disadvantage in drawing in the upper portion of the arm so as to rotate the upper end of the pad inward (Fig. VI), and makes it press slightly downward, thus giving the intestine an opportunity of slipping from under it, under violent exertion.

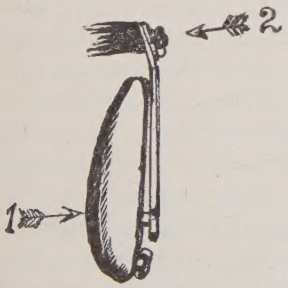

FIG. VI.—1, *point of pressure (on rupture.)* 2, *point of force (from spring)—giving an pad inclination to twist.*

This in general describes this form of truss, and its defects. I now present for description a truss manufactured by the Smith Co., Topeka, and called The Dr. Smith, "Honest John Truss," that in itself presents some very superior features in its working and construction. It approaches the nearest to a perfect truss of any I am acquainted with. I am told that the metal part,—the spring—is made of bronze, is easily shaped by the surgeon with his hands, and in a few moments can be made to fit the shape of the body perfectly. It has as you see, screws for the adjustment of the pad, and the spring curves upward and backward, (Fig. VII,) around the pelvis and makes its pressure directly behind the opening of the abdominal ring. As I have told you before that the regulation of the pressure is all important, you will see that this truss is so manufactured that the exact degree of pressure may be obtained with very little trouble; and I desire to say to you now, that all the pressure that is required, and all that ought to be used is just sufficient to retain the intestine; more or less than this is liable to do harm.

We will now apply this truss to the patient before you, and we will then study its effects.

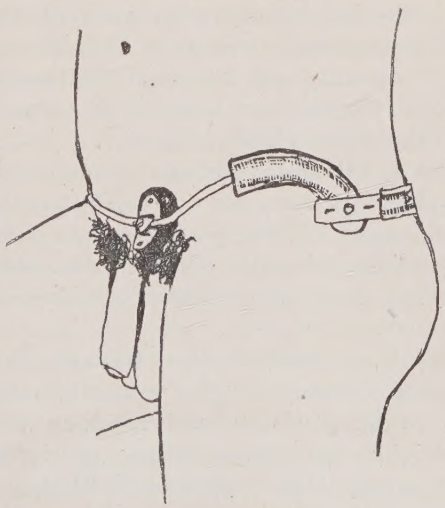

FIG. VII.—*The Dr. Smith "Honest John" Truss applied.*

You will see gentlemen, by looking at this patient that the curves come above the muscles of the thigh, so that in flexing the thigh

upon the body, stooping down, leaning forward, spreading the limbs apart, coughing, etc., there is no displacement whatever of the spring or pad, or any escaping of the gut through the abdominal opening.

Judging then from the ease with which it is adjusted, and its perfect action, you will at once concede its superiority over other trusses that I have shown you.

Now then gentlemen, I pass around for your inspection one of the trusses that I have described with the *long spring*, (Fig. III,) and will ask you to step down and see if any one of you in any reasonable length of time can adjust it to fit the patient, if it be at all possible to fit the patient with this kind of a truss.

Now, having found difficulty in fitting, you also find one serious defect not before mentioned, and that is, great difficulty in regulating the amount of pressure with the long spring.

Weights and Measures.

BY. W. D. BIDWELL, M. D., LEAVENWORTH.

Read before the Eastern Kansas District Medical Society, April 14, 1891.

In medicine and pharmacy we employ daily these instrumental means for the determination of quantity, and it may prove interesting to notice the origin of some of the terms used and other facts relative to them.

I have, therefore, gathered together a few miscellaneous items and will briefly give them in this paper. Fuller particulars are given in the various cyclopedias and special treatises on this topic from which these items have been gathered.

The name "*Avoirdupoise*" from the French meaning, "*to have weight*," was originally applied to the goods themselves which were to be weighed, but as time went on the denomination passed to the system by which they were commonly weighed.

The *pound* from the Latin, meaning "*A weight*," was at first entirely arbitrary. At one time seeds were used as the units both of weight and measure and the pound was then made the equivalent in weight of seven thousand grains of corn taken from the center of the ear where they were larger as well as more uniform in size. As this weight was liable to vary somewhat the House of Commons, in 1822, passed a bill declaring a brass one pound weight made in 1758, to be the original and genuine standard measure of weight, denominating it the *imperial standard Troy Pound.* The term "troy" being derived from Troy Norvant, an ancient name given to London. This pound they divided into twelve ounces of twenty penny weights, each penny weight containing twenty-four grains, so that five thousand seven hundred and sixty such grains made a troy pound; and they further declared that seven thousand such grains should be a pound avoirdupois.

The *foot* was first used in Greece where the length of some chief's or hero's foot was taken as the standard, and when the House of Commons legalized the imperial standard yard, the foot was also legalized as one-third the length of the yard measure.

Primitive man in measuring distances most naturally fell to counting his steps using as the unit of his system the *pace*, which is still employed for rough determinations. Long before the foot was taken as a unit, other units suggested by the person were employed, such as the *cubit* which is the length of the fore-arm. This was divided into two *spans*, meaning thereby the distance spanned between the extended thumb and little finger.

The span was divided into three *palms*, and the palm into four *digits*.

The *ell* (ulna), like the cubit, is the length of the fore arm.

The *yard* from the Saxon, "To gird," is the length of a girdle encircling the body once.

The *fathom* from the Saxon, to embrace, is the length of both arms extended.

The *hand*, *nail* and *thumb's breadth* indicate their origin clearly, by their names.

Early standards larger than those furnished by the person, were equally indefinite. The Israelites had the *reed*, probably the average length of a reed of the Nile, the Romans, the *pole*, the Italians the *cane*, the Germans the *staff*, and the English the *rod*, all measures derived from the same general source.

It was not until 1800 that any attempt was made to harmonize these various systems. Previous to this time almost every town in Europe of any commercial importance had its independent system of weights and measures. In 1323 it was provided by the British statute book that the *inch* shall have the length of three *barley corns*, round and dry, laid end to end. The word "inch" is from the Anglo-Saxon "inch," a twelfth, indicating that it was one-twelfth the length of a foot.

Previously to the conquest the British yard measured thirty-nine and six-tenths inches, or less than a quarter of an inch longer than the modern meter, but in 1101 it was reduced in length by being adjusted to the arm of Henry I. The standard being ill-cared for probably led to the legislation of 1324 just referred to.

Measures of capacity were at first derived from the contents of some natural vessel, for instance *a gourd*, or the shell of a cocoanut.

The smallest measure of capacity among the Hebrews—the *log*—was estimated to be equal in volume to six hen's eggs, a quantity ascertained by measuring the water they displaced.

The *log* measure of water is said to have weighed one-hundred and eight Egyptian drachms, each *drachma* being the weight which would fill a vessel capable of containing sixty-one barley corns.

The *Homer or Chomer* signified a "*heap*," and the *omer*, a diminutive of this, was the hundreth part of a Chomer.

The *cyanthus* of the Romans, signifying "hollow," was equivalent to the contents of the hollow of the hand. It was equal to two *Mussel shells* or two *Cochlearia* "Snail shells" or "Spoonfuls."

The *Cyathus* has also been defined as that quantity which one could swallow at a single gulp.

Skipping now to comparatively recent times we find that a House of Commons bill in 1822, fixes the capacity of the *imperial standard gallon*, by the requirement that it shall at the temperature of 62° F., with the barometer at thirty inches, contain ten pounds avoirdupois weight of distilled water weighed in the air.

The collection of facts just given intimates the manner in which, until the introduction of the modern metric system, all units of measure originated. They were not the creation of legislation. Legislative authorities have only interposed to regulate and secure uniformity and permanence in systems already found in existence. These systems have grown up in the rudest stages of society by a sort of social necessity, for without some standard of measurement, however imperfect, there can be no exchange of commodities founded on the idea of equivalence of value.

The confusion evidenced by a mere hasty review of this conglomeration of facts shows most clearly the necessity for a definite, universal, system of mensuration.

With this introduction to the subject I propose to consider the relative advantages of the system generally employed in this country, and of the metric system, to determine whether the latter should be universally adopted or relegated to the obscurity of an obsolete system.

The perfect system of mensuration is a system which is universal, easy of calculation, and based upon some non-variable standard capable of being obtained, *de novo* from natural sources. And the units of space, capacity, weight, etc., must be easily derivable from the unit of length. Failing in any of these requirements a system is imperfect. But of two or more imperfect systems it is possible that one may approach near enough to perfection to far surpass all others. If such is the case, it is desirable that the best system be adopted and its use extended, as far as may be, to all countries.

Such a system is claimed by the advocates of the metric system to be in existence and already well established in many countries. If this is the best system attainable in the present condition of civilization, if it is far superior to other methods in vogue, it is our bounden duty to substitute it for them.

A just and fair consideration of its claims to superiority and also of its defects is, therefore, the purpose of this paper.

An opinion should not be hastily formed nor should judgment be passed until all the arguments, pro and con, have been considered. It is not a mere question of multiplying by ten rather than by two or three. Nor is it

merely a question of the trouble of making a change from something familiar to something more or less untried. But a number of factors are to be taken into consideration and each must be allowed its due weight.

Many of the arguments against the metric system have been taken directly from a paper by Dr. Baldwin of Columbus, Ohio; some are undoubtedly weighty, but others are so trivial they would not have been mentioned had he not placed so much stress upon them that they could not be ignored without seeming to evade a consideration of them.

First, we will examine the disadvantages of the metric system and of these the most conspicuous is that the unit upon which all the measures are based is different from any other in use, and so different that its relation to others now in use can only be approximately stated, such difference necessarly introduces a conflicting element whenever one tries to think of a measure of one system in terms of another.

Moreover the equivalent of a measure of one system in terms of another, as for example one meter and its equivalent 39.37079 inches, or one gram and its equivalent 15.4323874 grains, give rise to so complicated and extended a fraction that the transferring of accounts kept according to the old system to the new or metric system will necessarily be cumbersome and somewhat inexact.

This changing of accounts extends not merely to calculations, but also to the bulk and weight of the thousands of articles of merchandise which are now sold in original packages.

The pound boxes and packages, the quart and pint bottles and measures must all be altered to conform to the new system. Were all the rest of the world using the metric system the necessity for a change would be much greater, but a large proportion of our trade is with England, a country which uses the old system, and our commercial relations would be greatly strained by the necessity for making transfers from one system to the other in every exchange of commodities. Machinery constructed on the basis of the inch as a standard must be changed at great expense. All deeds and papers involving land measurements will require remodeling and recalulation and even thus may lead to confusion and law suits owing to the complicated fractions resulting therefrom. Again, although the use of decimals is the simplest method of computation for large numbers and quantities, the subdivision of commodities is more conveniently accomplished by multiples of two and three.

In this connection it may be *apropos* to refer to what has been suggested as the most perfect method of notation, although at this stage of the world's progress there is no chance of its adoptiou.

Computation by twos and threes being most natural and simple a uniform system for all calculations both great and small could be obtained by inserting after *nine* two more Arabic numerals representing our present *ten* (10) and *eleven* (11) each represented by a single character. Then letting the numerals *one* (1) and *zero* (0) represent *twelve*, and using this as a base of a duodecimal system we should have 100, representing the second power of twelve, 1000, the third power and so on.

While this may appear at the first glance to be rather complicated to those who have been brought up to and are daily using the decimal system, yet to the child familiar with his twos and threes it is simpler and more rational than the much vaunted decimals.

But to return to the disadvantages of the metric system, we find that it is based upon the *meter*, which is supposed to be an exact ten-millionth part of a quadrant of the terrestrial meridian of Paris. I say "*supposed to be*," for, as has been stated by opponents of the system, those who determined the length of the meter dared to suppose that their instruments were perfectly accurate, and that they could use them with absolute accuracy. Absolute accuracy being an attribute of infinity an 1 these men supposedly finite, as a natural result, their work has since been ascertained to be incorrect and we have a system based upon an approximate fraction of a natural object, which is equivalent to saying that it is based upon an arbitrary standard.

Then too the unit which is to serve as a basis of a system should be of convenient length for the majority of uses to which it will be put in the working world. For instance

the foot measure is not too long to be carried in the pocket when folded once and is of a very convenient length for desk use, while the meter is inconvenient in both these respects.

The adoption of the metric system implies a more extended use of the decimal system and the consequent simplification of compound numbers and of some problems in mensuration. Against this it has been urged that it is better children should spend the extra time necessary to master compound numbers, not so much for their practical use in after life, as for the discipline thus obtained.

When used in medicine and pharmacy the metric system is objectionable because of danger of misplacement of the decimal point thus changing a safe dose into a dangerous one ten times as strong.

Solid medicines are dispensed wholly by weight, but liquid medicines are dispensed by weight in one country, by volume in another and as they vary greatly in specific gravity this difference in method may give rise to great confusion. For example in a prescription containing three or four ingredients, there may be a solid, the amount of which will be expressed in grams, and liquors of greatly varying specific gravity, which, if expressed in grams, would give a mixture whose bulk could only be determined by careful computation, or, if expressed in cubic centi-meters it would not agree with the method employed in Germany and other foreign countries, hence a third method is sometimes resorted to,viz.: Dispensing the ingredients all by weight and then adding enough of some neutral liquid to make a certain quantity by volume. To be exact, we must know the bulk that a mixture will make in order to know how many doses of a teaspoon or a tablespoon it will make. And how can exactitude exist with these methods? Here are three systems all different yet each metric and confusion is the result.

Another argument against the metric system which has already been alluded to is the feeling of inexactness which must accompany the attempt to change doses from the old system into the new, owing to the fact that there is nothing common between the two. Fifteen grains are regarded as equal to one gram—an error of three per cent.; one grain as equal to six centi-grams, an error of eight per cent., etc.

Physicians who have used the metric system for over a year have decided that it causes great confusion, and one who has employed it for three years while studying in Europe, was glad to return to a country where the more reliable methods of the old system obtained.

Why should we seek to be uniform with countries from which we differ in language, laws, customs and politics? Will uniformity benefit the mass of the profession?

Certain medical journals have advocated the metric system and in urging its advantages have stated that "the half-dime token (nickel) weighs a gram, and is a metre (39.369 inches) in diameter." If the leaders in this movement make such errors what is to be expected of the rank and file?

Finally, physicians have been advised not to vote for the adoption of this system on their own judgment, but to wait for "the action of some calm, deliberate, authoritative body, such as the 'Pharmacopœel convention' which shall decide what is best, and, if a change shall seem desirable, when and how it shall be accomplished?"

To sum up briefly why the metric system should not be adopted we notice:

First—That the unit is different from that of any other system.

Second—That the equivalents of units of the new system in terms of the old, and *vice versa*, give rise to complicated fractions.

Third—That while computation of large quantities is easier by the decimal system the subdivision of commodities is more conveniently accomplished, by the use of halves, quarters and thirds.

Fourth—That the unit is an inexact measurement of a natural standard and is therefore as arbitrary as any other unit.

Fifth—That the unit is of an inconvenient length.

Sixth—That children would miss much of their training and discipline in compound numbers were this system adopted.

Seventh—That there is great danger of the decimal point being misplaced when strong drugs are prescribed and poisoning resulting therefrom.

Eighth—That when liquid drugs are prescribed by weight no idea can be obtained of the bulk of the resulting mixture owing to the difference in specific gravity of the component liquids.

Ninth—That when liquid drugs are prescribed by measure the uniformity with methods employed in European countries is lost.

Tenth—That in all prescriptions according to the metric system there is a feeling of inexactness because of changing the dose as given in the old system to the new.

Eleventh—That physicians who have tried the metric system for from one to three years prefer the old.

Twelfth—That we are not uniform with the countries which use the metric system in language, literature, laws, customs or politics and why should we seek to be so in weight and measure?

Thirteenth—That the leading advocates of the system have made such mis-statements as that the half-dime token measured one meter in diameter.

Fourteenth—That physicians should not be forward in adopting such a system until it had been examined into and judgment pronounced upon it by a deliberative body as the Pharmacopœal Convention.

Turning now to the other side of the question, can any valid arguments in its favor be brought forward?

It is not easy to study any matter thoroughly without feeling inclined to do battle for one side or the other, and one author has already been quoted whose bias seems to have been so great that he found a number of arguments against, and practically none in favor of, the metric system. My bump of combativeness being well developed, and my habits progressive rather than conservative, I confess to an inclination to take up the gauntlet and act as attorney for the system. Nevertheless I have conscientiously gathered every argument I could, both pro and con, and have stated them fairly and the only possible unfairness that can be laid to my charge is in giving undue weight to one or other of the arguments in favor of the metric system in the final summary, though I have endeavored to guard against even this change.

Replying seriatim to the arguments that have preceded, it is noticed, first, that the unit of the system is different from that of any other system. This fact no one will attempt to deny. But while letting this fact stand unchallenged, I think it will be conceded, after a consideration of the reasons to be given under other heads, that this is far from being prejudicial to the metric system. That it is inconvenient to transfer accounts expressed in the metric system into any other is evident. But is it any more inconvenient to estimate a fluidrachm in cubic centi-meters than in drachms? Because similar names have been used many people imagine identical amounts are meant, but one fluidrachm is equivalent to 0.9493633 drachms.

Both these terms have *been* used in the U. S. Pharmacopoeia, and certainly it is some time since any one arguing *against* the metric system has referred to it.

One fluid ounce is equivalent to 1.80468 cubic inches. It is as easy to estimate quantities expressed in one of these systems in terms of the metric system as to estimate them in terms of each other. Moreover when the metric system is employed the units of linear, square, cubic, liquid and solid measure all bear a simple and easily calculated relation to each other. So that were the metric system adopted, measures called by one name, but of greatly varying amounts, would be done away with, and the calculation necessary to transfer accounts to the metric system would be the last of a series of complicated computations to be followed by simplicity and exactitude.

Mr. Percival Fowler has said, "He could speak from practical experience that in Spain, in a week, the workmen became thoroughly conversant with meters, centi-meters and millimeters, and he was certain that the difficulty of changing the English system of weights and measures to the decimal system had been greatly over-estimated."

Physicians learn to think of the dose of morphine as one-eight or one-sixth of a grain, but with a little practice it would be as easy to think of eight or ten milligrams. This would not be precisely the same as the eighth or sixth of a grain, but it would be so nearly the same as to prduce the same result and absolute

exactness is confessedly an attribute belonging to the infinite alone.

Every sub-division of the pound as well as the pound itself, differs in England and France. One grain troy equals .97 grain avirdupois. To show briefly the uncertain idea which is conveyed when one speaks of a grain, and also, hinting at the amount of calculation necessary to express a given weight so that it will convey exactly the same idea to a number of people, I have copied the equivalent of one grain troy in the medical weights of various countries:

France (old)	.820	Spanish	.769
Tuscan	.758	Roman	.757
Austrian	1.127	German	.960
Russian	.960	Prussian	.940
Dutch	988	Belgian	.988
Swedish	.954	Venetian	.809
Piedmontese	.824		

The troy ounce contains 480 grains, and the avoirdupois ounce 437½ grains. There are 12 ounces in a pound troy, and 16 ounces in a pound avoirdupois. This gives 5,760 grains in the troy pound and 7,000 in the avoirdupois pound. From which it results that an ounce of gold weighs 42½ grains more than an ounce of lead, while a pound of lead weighs 1,240 grains more than a pound of gold.

A ton of coal in Philadelphia weighs 2,240 pounds, outside the city limits a ton of the same coal weighs 2,000 pounds.

A quart of wine measures 57¾ cubic inches, a quart of milk 70½ cubic inches, and a quart of oats 67½ cubic inches.

Commentary on such a table and such facts is almost superfluous. The words pound, ounce, grain, etc., are being used daily by thousands of people, me ning any one of several different weights according to what the speaker may have in mind, and for this it is sought to substitute a system in which meter, cubic meter, liter, etc., mean one and the same thing wherever they may be used; and to transform a French or English pound into kilograms is no more difficult than to turn one into the other.

It was urged that the use of the metric system in this country, when the old system was employed in England, would greatly interfere with our trade with that country. It certainly would; but in Shropshire as late as 1871, different articles of merchandise were sold by different kinds of weight, and different weights were employed for the same merchandise, on different market days. If at so late a period as this England was unable to bring one of her own countries into line and managed to transact business with it, it hardly seems necessary for the United States to adhere to a system merely because England employs it. But are we using the same system as England?

While we employ weights identical with those used by Great Britain it is notorious that the measures of volume in the two countries are very dissimilar. In the United States for the measurement of capacity, twenty-seven units are employed, though but nineteen have different names. None of these are duplicated however, except in names; and the gallon has three distinct values, so also have the quart and pint. The bushel appears to have but one value, but in nearly every State and in the customs tariff of the general government the term is also employed as a unit of weight, the law fixing the number of pounds according to the substance weighed. The value of the bushel under the laws mentioned prepared from the latest information shows that the most common products of the earth have no uniform standard of measurement. In the contiguous States of Massachusetts, Connecticut and Rhode Island, a bushel of oats, for instance, is respectively, 22 pounds, 28 pounds and 2150.42 cubic inches, and like confusion exists throughout the country.

As no trade restrictions exist between the several parts of the country, the disadvantage of having so common a standard as the bushel mean one thing in one State and another in another is easily seen. But even in local transactions one meets with troy weights, apothecaries weights and avoirdupois weights; with long tons, short tons and shipping tons; with wine gallons, beer gallons and dry gallons, and with barrels of undefined sizes, making in all an aggregate of appalling confusion.

The British gallon for both liquid and dry measure contains 277.274 cubic inches, The United States wine gallon contains 281 cubic

inches and the bushel has a capacity of 2,150.-42 cubic inches. The bushel for measuring the products of the earth has 130 different sizes in this country, and none of them of the size of the bushel of England, to which country most of our surplus products are shipped in quantities measured by bushels. Those who favor the English system then are not inconvenienced by the necessity for converting that system into any one of the United States systems, but would be if they had to convert it into the metric. This is absurd.

Our commercial relations with Great Britain are strained now by the dissimilarity of measures of volume as well as by other causes, they would not be much more strained by altering the measures or weight; in fact the British hundred-weight and ton are 12 per cent. heavier than weights of the same name in our country and our relations with other countries would be more than correspondingly simplified.

The following quotation shows the opinion held by congress of the value of the metric system ten years ago:

"The agreement between the United States and Great Britain, signed at Washington, June 18, 1880, for increasing the limits of magnitude of packets exchanged through the post between the two countries, uses the gram and centimeter, and contains no reference to any other unit of weight or measure." [United States statutes at large 5, 21. p. 2768.]

Again as to the volume of our trade with countries in which the metric system is employed and with those in which it is not in use, statistics show that for the year ending June 30, 1877, the value of our imports from countries where the metric system is obligatory amounted to $177,807,469; partially in use $17,378,735, legalized $265,211,585; not legalized or in use, only $23,804.140. Of the amount received from countries where its use is legalized Great Britain and British Possessions furnish $185,667,400. The relation of our systems to the one they employ has already been discussed. The only legalized system of weights and measures in this country to day is the metric system, and this system is the only one we possess in harmony with that of any other country.

The third argument, that it is easier and more natural to subdivide by two and three than by ten must also be admitted, but this would only militate against the metric system if the question lay between it and the duodecimal. However it is impossible at this stage of the world's progress for such a duodecimal system as has been proposed to be adopted. Multiplication is much easier by the metric system, and there is nothing in it whieh makes it inconvenient to sudivide by two, so that this argument though true is entitled to but little weight. In this connection it is interesting to note how those who object to the decimal notation if asked how strong preparations of antiseptics they employ in surgery will reply, "so many parts in a thousand or hundred." They use per cent. preparations daily, without thinking, and antiseptic tablets are now made almost entirely upon this basis. The practice of such cavilers speaks louder than their preaching.

Fourthly, the meter is indeed an inexact measurement of the one ten-millionth part of a quadrant of the terrestrial meridian of Paris. It, however. fulfils one requirement of the unit of a perfect system, viz: That it is based upon a non-variable natural standard. Of course it is inexact. In this world nothing is exact. Perfection is an attribute of the deity alone and the best we can do is to approximate perfection as closely as possible. Undoubtedly the meter is very nearly what it is claimed to be, near enough for all practical purposes, and by reason of its origin is far superior to a standard derived from some man's foot or arm, either of which can grow longer; and moreover, even when made standard these measures can have no more claim to perfection than has the meter. So that although we fall short of perfection in our unit, in all probability we approach as near to perfection as is possible with our present appliances.

Fifthly, the unit is of an inconvenient length. Is it? A meter is as convenient as a yard for use at the counter or elsewhere and rulers can be made as many centimeters long as any one may wish so that this objection is very easily disposed of.

The sixth argument against the metric system is so weak that I would have ignored it,

but that some one might claim it was therefore valid. The claim is that much of the discipline in dealing with compound numbers would thereby be lost. Indeed it would be lost and this loss would be a pure gain. Enough calculating in compound numbers will remain for all the discipline that school children require, and the courses in the public schools are so arranged, there are so many subjects to be taken up in gaining a common school education to-day that with all the economy of time possible the practical branches which must be studied will give the average child all he can do, and will provide discipline of the mind while imparting useful and practical information, which is much better than cumbering the memory with the details of unpractical work merely for the sake of exercise. The most bigoted advocate of the study of dead languages does not go so far as to urge that study solely for the sake of the discipline obtained.

The seventh objection relates to the danger of misplacing the decimal point when writing prescriptions, thereby changing a safe dose of any drug into a dangerous one ten times as strong. The danger from this source is largly obviated by having prescription blanks arranged with a vertical line which takes the place of the decimal points. Grams and cubic centimeters are always written on the left of this line and their fractions on the right. With this safeguard there is less danger of mistakes occurring than when the old apothecaries measures are used, for it is a well known fact that the drachm and ounce signs are often confused. The substitution of Arabic for Roman numerals is also an additional safeguard when using the metric system. And in addition it may be stated that either system is safe with that proper care which physicians and pharmacists are always supposed to exercise when using poisonous drugs. No system is safe when employed by a careless individual. The danger in this case lies in the *man* not in the *method.*

When liquid drugs are prescribed by weight no idea can be obtained of the bulk of the resulting mixture owing to differences in specific gravity. This is very true. If a single liquid is prescribed it is unnecessary to know the bulk; the directions would read, "take so much so often." If two liquids are combined they must be prescribed by bulk, and although this may not be the identical method employed in all countries yet if the metric system is employed it will be easier for one prescribing by weight to comprehend a prescription written in units of bulk, than for him to comprehend a prescription written in units of a system differing as widely from his own as the apothecaries' differs from the metric. Again when solids and liquids are prescribed in the same mixture in units of apothecaries' measure we do not know what the resulting bulk will be. It has already been stated that one fluidrachm is the equivalent of 0.9493633 drachms. Add three or four drachms to one fluidounce, let this combination from a perfect solution or a mixture and what is the resultant bulk? Suppose that when a perfect solution is formed the bulk is not increased, when there is merely a mixture the result will be otherwise. Yet I venture to say those, who raise the objection against the metric system that in prescribing by weight the resultant bulk cannot be known, have more than once combined solids and liquids according to the old apothecaries system and not been worried greatly as to the outcome, though they were far from knowing what the resultant bulk would be.

The tenth objection is taken from a writer, who states that as a result of the inability to determine the bulk of liquids combined by weight it was "impossible to predict, with anything like the degree of accuracy desired, the amount of medicine the patient will get. This inaccuracy may be but a mere bagatelle to the visionary and transcendental Bostonian, but to myself it has always been a source of very uncomfortable solicitude," I am something of a Bostonian myself and possibly I will also be called visionary and transcendental, but it seems to me if the complainer is using the apothecaries system and prescribing mixtures of liquids and solids to be taken in certain and assured volume of teaspoon and tablespoon doses, he is or ought to be still exercised with uncomfortable solicitude.

It has been stated in the preceding paragraph that even with the present system of

apothecaries measures the bulk of the resultant mixture cannot always, if ever, be accurately predicted so that if the patient were directed to take one drachm at stated intervals the physician would not know exactly how much of each ingredient the patient was receiving in each dose. But there is room for a still greater error yet. It may be that the Ohio physician referred to always sees to it that his patients are provided with accurate drachm measures and taught to measure their doses with them. In using the expression "taught," I speak advisedly, for one person will fill a measure only to the point where he can see the division line clearly above the top of the liquid, while another pours in the liquid till the center of the globule rises well above the line, while at the edge of the glass the circumference of the globule coming in contact with a dry surface is appreciably below the center, and on a level with the division line, making a noticeable difference in the amount of medicine each takes. But I must confess that nearly all the physicians I have met merely direct the patient to take a teaspoonful or a desertspoonful or a tablespoonful and do not test the capacity of the one to be used. I say, it may be that the doctor provides that his patients are all thus equipped and instructed, but from his paper insisting that the bulk must be ascertained to determine "how many doses, of a tespoonful or a tablespoonful each, it will make," the inference naturally is that he employs these inaccurate methods and therefore I am constrained to believe that his solicitude arises from seeking to find a possible flaw in the metric system rather than from a thoughtful and painstaking regulation of the precise dosage of his cases.

Of course there will be necessarily some study on the part of the physician to carry in mind the dose of a large number of drugs expressed in the metric system, but as has already been stated, the handy tables giving the approximate equivalents of apothecaries weights and measures are near enough for all practical purposes, and in all probability, when prescriptions are compounded and administered in accordance with them, the patient will receive as nearly the amount of each drug intended by the physician, as he does when told to take a teaspoonful of a mixture containing three drachms of solids in one fluidounce of liquids.

The dosage of drugs unfortunately has not been as exactly determined as it will be hereafter, and the best authorities to-day in recommending the proper dose of a drug give, in most cases, an option of from a certain amount up to three or four times that quantity, E. G. opium, dose one-third of a grain to one grain, or even *many* grains in case of severe pain.

The approximate tables for transferring doses are certainly as accurate as is the expressed dosage in all the authorities and if one has found the exact doses of certain drugs, for example, the alkaloids, that are required to produce certain effects, these instances cannot be so numerous as to make it any great hardship to figure out very closely their metric equivalents, and the result is worth the trouble.

The eleventh argument is, that physicians who have tried the metric system for from one to three years prefer the old system. This may be true of a number, but it has not been my fortune to meet such. On the contrary I have met many who have used, now use, and greatly prefer the metric system. Dr. A. Jacobi of New York, in answer to questions regarding it, states that he has used the metric system for ten or fifteen years, on the whole prefers it to the old apothecaries system because it is easier when once accustomed to it, and is the system used in all scientific works of European origin and even in most English works. He thinks its adoption by the profession in this country would be an advantage, and is decidedly of the opinion that it will be universally adopted.

Unfortunately a number of excellent articles on this subject are not available at present, but I am informed that a lecture explaining the metric system delivered by Prof. Remington, before the Virginia Pharmaceutical Association, is an able presentation of the subject. Prof. T. C. Mendenhall, superintendent of the coast and geodetic survey, writes that the metric system "has been in use in that survey from the time of its organization at the beginning of the century." Its use is unquestion-

ably growing every where. It requires vastly less time than the ordinary system, both in its use, and in its acquisition by children at school.

In my judgment it is bound to prevail every where before many years. Many physicians now use it exclusively in making prescriptions, and their influence is certain to aid in its final adoption.

These are but samples of endorsements which can be obtained by hundreds if one takes the trouble to inquire of those who use the metric system.

While we are not uniform with foreign countries in language, literature, etc., etc., yet we should be as uniform with the world at large as possible to faciliate commerce and science. This uniformity will benefit the medical profession directly, particularly those who travel and those who read current medical and scientific works. Physicians who do none of these things will not be particularly interested, but they do not constitute the majority of the profession.

That medical or other journals make such wild statements as that the nickle is a meter in diameter has nothing to do with the case, even though that journal be an advocate of the metric system. Such an evident mistake of a composer or a slip of the pen of a hasty editor would not be adduced as an argument except by one who had nothing of any weight to bring forward.

Lastly, physicians have been advised not to vote for the adoption of this system on their own judgment, but to wait for the "action of some calm, deliberative, authoritative body—such as the Pharmacopœial convention—which shall decide what is best." Possibly that is good advice. Indeed I feel assured it is; but if this is all they are to wait for, their time has come. Dr. Whelpley of St. Louis, in the Kansas City *Medical Index*, states that the seventh decennial revision of the pharmacopœia of the United States of America will be in the market in less than two years and that one of the new features of the revised work is the adoption of the metric system of weights and measures in the manufacture of preparations. He also states that it may be many a day before the medical profession becomes sufficiently advanced to adopt this system in prescription writing, but intimates that lazinesss is about the only reason for its non-adoption, quoting from the report of a committee of the American Association for the advancement of science where it says, for the use of these professions (medicine and pharacy) six lines contains all that is necessary.

An increasing interest in the subject has drawn out this paper to an unexpected length. The prime object has been to determine the value of the metric system in medicine and pharmacy. At first it was the intention merely to find what was to be said in reply to a paper ostensibly explaining, but in reality attacking the metric system, but a little research showed that some of the real objections to the system were not mentioned and that for a full comprehension of its value to the professions of medicine and pharmacy, it was necessary to consider some, at least, of its commercial bearing.

Some author has stated that a perfect system of metrology must present units of such value as will best subserve the practical requirements of science, commerce, arts and manufactures, and it should be in harmony with the arithmetical notation in use. How far this is true of metric system has been shown.

All the arguments I can think of against the metric system have been adducted but while it is allowed that the system is not a pefect one it appears to me that the weight of argument decidedly recommends this system for immediate adoption, in medicine and pharmacy, if not in general commerce also.

The simplicity of the metric system is seen in that twelve separate names will represent all the denominations of length, surface, solidity and weight, whereas we now employ sixty-two separate and arbitrary names of units.

Every time that we pass a nickle we handle a five gram weight. Our fractional silver coins also represent metric weights. The fifty cent piece weighs 125 decigrams; the twenty-five cent piece, 625 centigrams; and the ten cent piece, 25 decigrams. Almost insensibly we are becoming familiar with the metric system and the ease with which it will be adopted, will be a surprise to many. It is locally and partially in use to-day, why not make it universal?

Surgical Treatment of Tuberculosis of the Knee Joint.

Read before the Eastern Kansas District Medical Society, at Topeka, Oct. 14, 1890.

GEO. M. GRAY, M. D., KANSAS CITY, KAS.

Mr. President and Gentlemen :—

The knee joint, the largest joint in the body is so superficial that any alterations produced in it by disease are clearly marked. It is probably more liable to traumatism and accident than other joints from its superficial and exposed position. It is also more easy of access for surgical exploration or operation, for the same reasons.

Contusions, overstrains and exposure cannot in themselves produce tubercular joint disease, except there be present at the same time the specific tubercular bacillus is now generally admitted.

Max Shuller states in his article in Enlenburges "real encyclopædia," "that most acute and chronic joint inflammations, even though simple in character, are awakened by the introduction of the microbes or their ptomäins which have entered the blood from inflamed or suppurating sites in the skin,connective tissue, bones or mucous membrane of various organs, especially the tonsils, nose, lungs, intestines and urinary tract. Of two-hundred and six cases of joint inflammation collected by him, fifty-four were tubercular in character, the disease being located in the knee joint in 35 per cent. of all cases."

The disease may begin either in the synovial membrane or in the spongy portion of the bone around the joint, but seems to begin most frequently in the bone.

The tubercle here as elsewhere exhibits the same tendency to caseation with the formation of caseous pus.

Knowledge of the nature of tubercular joint inflammation has led to a clearer understanding of the principles governing its successful treatment.

The necessity of the early recognition of tubercular inflammation of the knee joint is now considered, and early operative treatment approved. Dr. Gurster states that the modern treatment of local tuberculosis is identical with that accepted for the cure of malignant new growths, it consists in a more or less complete removal of the affected tissues or organs, either by caustics, the knife or gouge under aseptic precautions.

But experience has shown that it is not necessary that every vestage of diseased tissue be removed, in order to effect a cure in joint tuberculosis.

Tuberculosis differs from malignant growths in the fact, that it has a tendency to die a natural death; time will kill local tuberculosis unaided by the surgeon in many cases, but the misfortune is, that it is so dilatory in the exercise of its healing powers, that quite often the joint or the patient or both are destroyed before the disease.

With our present knowledge of the etiology and pathology of tuberculosis of the knee joint, the tendency of the disease to so far destroy the joint as to make amputation necessary and of the disease becoming general or attacking other tissues by absorption and proving fatal in this way, it seems to me that operative procedures with a view to completely removing all the diseased tissues so far as possible, and the substitution of firm ankylosis of the knee joint for a worthless joint and useless limb, are the objects to be sought. Amputation should only be considered as a last resort, when by no conservative operation can a useful limb be saved to the patient. Partial operations should be avoided as they only tend to complicate the disease. Therefore in those cases of tubercular inflammation of the knee joint, where palliative treatment with fixation of the joint, for a reasonable length of time have failed, and there are indications of pus formations, the indications are then for operative interference. The case may be a suitable one for erasion or exsection, or may require amputation.

Erasion will find its main application in young subjects where the disease is mainly synovial. The operation as performed by Dr. Wright, consists in opening the joint by an incision slightly curved downward, made from one femoral condyle across the middle of the patella to the other condyle, the skin is dis-

sected upward and the patella exposed, which is either sawn across, or in young subjects divided with a stout scalpel, and the two halves turned upward and downward. To do this longitudinal incisions are made through the tissues on each side of both halves of the patella upward as far as the upper limit of the synovial pouch, and downward nearly to the anterior tubercle of the tibia. The lateral ligaments are freely divided, and the whole of the anterior and lateral parts of the capsule, together with the semilunar cartilages and synovial membrane are cut away, taking care to enucleate and dissect out the whole of the upper synovial pouch. All synovial membrane and pulpy material is removed from the neighborhood of the patella and its ligaments. Next the condyles of the femur, crucial ligaments and upper end of the tibia are carefully cleansed, every particle of diseased tissue being either cut or scraped away.

Next by flexion and rotation of the loosened joint all the diseased synovial membrane and capsule at the back of the condyles and inter-condyloid notch as well as between and behind the crucial ligaments is carefully removed. If the crucial ligaments are infiltrated with tubercular material, or if they really interfere with and prevent the complete removal of diseased tissues, they should be removed, they not being necessary to a good result.

Great care must be taken to thoroughly remove the whole of the semilunar cartilages and synovial membrane at the back of the joint, since it is here that diseased tissue is likely to be overlooked, and here caseous foci and even localized abscesses are often found. After dissecting away all the morbid tissues in the soft parts the bone must be carefully inspected and any little pilt or doubtful spots in the articular cartilage or on the bony surface must be removed, but no healthy tissue sacrificed. After making quite sure that all diseased points have been removed, the joint is freely douched with a bi-chloride solution. Any visible vessels are ligated and the tourniquet removed and all bleeding points secured. The joint is then freely dusted with a powder composed of equal parts of iodoform and boracic acid. The patella is sutured with cat gut. Drainage is then provided for by forcing a blunt raspatory through the tissues at the back of the joint on either side of the limb, cutting down upon it through the skin and passing a tube through each wound. The front wound is then sewed up, and antiseptic dressing applied. The limb is then placed upon a bracketed back splint with foot piece.

The advantages claimed for this operation are, first, that there is no shortening, which is quite an important point where the subject is a child. As in exsection of the knee joint in children there is always very marked shortening if the epiphyseal lines are interfered with. As the growth of the femur takes place mainly at the junction of the diaphysis with the lower epiphysis, and the tibia from its uppor epiphyseal line.

Of thirty-seven cases reported by Dr. Wright, twenty-two recovered with useful limbs, only one developed phthisis and in this case phthisis developed one and three-fourth years after operation. In three cases they did exsection subsequently with success, and in the balance amputation.

Dr. Muller concludes from an analysis of forty-two cases of erasion for tuberculosis of the knee joint that the operation of itself presents no danger for the life of the patient, neither in the operation itself or in the after treatment, for out of his forty-two cases only two ended fatally, and death in neither of these cases could be said to be due to the operation either directly or indirectly. He places erasion above all other operations, and would give it considerable preference over conservative treatment. The average time of treatment in his cases was seven to three weeks, some of them leaving their bed in three weeks. In ten of his cases a secondary exsection was necessary. In his opinion erasion and ex-section presents about equal chances for the complete removal of the disease.

Dr. Strom is more in favor of exsection, and thinks that exsection should always be preferred in adults, but with children, he thinks the question still open.

Exsection is performed in the same manner as erasion and the only difference between the two operations is that in exsection the articular surfaces of the tibia and femur are removed and the two surfaces either nailed or wired

together. It seems to me that exsection offers better prospects for complete removal of all diseased tissues than erasion, and accomplishes all that is claimed for erasion, but with more or less shortening. The advocates of erasion expect ankylosis, but without shortening. The amount of shortening after exsection, unless considerable is no disadvantage as a person with an ankylosed knee joint will walk better with the ankylosed limb a little shorter. I have had no experience with erasion, but will conclude by reporting the following cases of exsection:

Case I—J. E., German, age 21, occupation a farmer. His sister died at age of 28, of phthisis pulmonalis. Mother and father both living. In April, 1887, first noticed pain in left knee joint, but about three weeks before this time, had jumped from a freight train while in motion, and felt pain in joint immediately which soon disappeared, and during the three weeks following this felt well, but about this time the knee began to feel stiff in the morning, but after moving it some did not trouble him much during the day. This gradually grew worse until the middle of June, when he was treated by extension and wore a brace. When I first saw him in January, 1889, he had been unable to walk for several months. Knee somewhat enlarged, leg and foot edematous. He was anæmic with loss of appetite, no cough. I applied a plaster of paris coat and extension; this was kept up with blisters to joint until March, when the extension was removed and another cast applied, and he was allowed to get up and go to his home in the country, returning about the middle of May. At this time there was indication of fluid within the joint, and he had some elevation of temperature in the evening, with profuse perspiration at night. He was admitted at St. Margaret's hospital June 20th. On June 25th I exsected the knee joint, Drs. Perkins, Hoyt, Talbott and McClennan assisting. Opened the joint by the U shaped incision below the patella, found a quantity of cheesy pus within the joint, and quite a quantity of pus beneath the facia lata which had burrowed up the thigh from rupture of the capsule. Also caseous foci in the head of the tibia and the condyles of the femur. Dissected out all the diseased tissue within the joint, removed articular surfaces of tibia and femur, fastened ends of bones together by nails, three nails being used, made opening at upper part of pus cavity in thigh both on outer and inner side and introduced drainage tube, bringing them out at the wound at knee. Also introduced drainage tube behind the bones, and in front beneath the patella. Patella not removed several tendons sutured, wound in integument closed and dressed with bichloride gauze, and put on posterior splint; limb was dressed every day for three weeks, irrigating with a solution of bichloride of mercury 1-3000. August 5, cast applied, patient left hospital about August 22, with two nails still in, which I removed, soon after wounds entirely healed. From this time on the improvement was uninterrupted and the patient now has a useful limb with about one inch shortening.

Case II—N. C., Irish, age 8 years; admitted to St. Margaret's hospital September 2, 1890; was unable to obtain satisfactory history, but as obtained from the child. About middle of May had a chill followed by fever and swelling of the knee and became very painful. In July sinuses formed below the joint just above anterior tube of tibia and on outer side of popliteal space. Exsection of knee joint September 8, Dr. Down assisting me. Head of tibia was extensively involved *leg flexed with* subluxation of tibia; sinuses extended down to sequestrum in head of tibia and into the joint which was filled with tuberculos material. The articular surfaces were sawed off, and after scraping out all diseased places and removing patella which was involved in tuberculous process, the several ends of bone were wired together with two large silver wires, drainage tubes were inserted above and beneath sawed surfaces, and wound closed. Wound was dressed with sublimate gauze and limb placed on posterior splint. The wound suppurated extensively, which necessitated daily dressing. But the patient made, though rather slow, a perfect recovery, and now has a useful limb. I removed both wires about four months after the operation, only one of which had caused any trouble. After the wires were removed the limb was again put in a plaster cast and she went to her home which was in the country.

A Case of Picrotoxin Poisoning, with Remarks.

Read before the Eastern Kansas District Medical Society, at Topeka, April 14. 1890.

BY EDWIN B. SHAW, M. D., OSAGE CITY, KAS.

On account of the infrequent use to which *cocculus indicus* and its active principle, picrotoxin, are put, the intelligence of this society will not be impugned by assuming that all of the members are not familiar with the drug.

A careful search has resulted in finding but five reported fatal cases of picrotoxin poisoning, only three of which are clearly established, so that the one about to be presented will be the sixth case on record, which of itself will lend interest to it.

Sometime during the month of October, 1890, by the courtesy of Jno. W. Elston, the coroner of Jackson county, Missouri, I was permitted to witness the *post mortem* of a man dead from the taking of a concentrated tincture of *cocculus indicus*.

Case.—August Henry Nicholie, age 51, born in Germany; his health had not been good for the past ten years. About five years ago, when suffering from a bronchial catarrh, he purchased, as he supposed, some wild cherries, which he requested the druggist to put in a half-pint flask and fill with brandy. Of this he took teaspoonful doses at irregular intervals, together with two other members of his family, without experiencing any untoward effects. The flask was then put away in the cupboard and there remained undisturbed and forgotten till about two weeks preceding his death. He then took the flask, containing the dry berries, and had it filled with whisky, still supposing the berries to be wild cherries. Of this tincture he had been taking small doses for upwards of a week. At about 10 A. M., he took a considerable quantity from the flask, after which he complained of feeling dizzy and very sick at his stomach. He went out on the porch and excited vomiting by tickling his fauces. He returned to the house, expressed himself feeling relieved, but in a few moments fell to the floor in a convulsion. Convulsions of a tonic and clonic character followed in quick succession until death closed the scene, Unconsciousness was complete during the convulsive stage. From the taking of the tincture till death ensued embraced a period of thirty minutes.

POST MORTEM.

The post mortem was held at 8 P. M., of same day at the residence of the deceased, on Independence avenue, Kansas City, Missouri. *Rigor mortis* marked, body excessively adipose, abdominal walls two and one-half inches thick, lungs healthy, right adherent throughout the chest, heart in systole and empty, fatty, but otherwise perfectly healthy, liver fatty and enlarged, spleen flabby and friable, normal in size, kidneys fatty and enlarged, stomach excessively dilated, empty and mucous membrane congested in spots. Unfortunately the brain and spinal cord were not examined. Be it said to the credit of the pharmacists of Kansis City, that the berries were sold by a speculator who had possession of and conducted the drug store temporarily. One at all familiar with the appearance of the wild cherry and fish berry, could scarcely mistake the one for the other.

CASES REPORTED.

Dr. W. B. Thompson, of New York, reports a case of death in a child six years old, preceded by violent tetanic spasms, in which a strong tincture of the fruit had been applied to the scalp. A case of fatal poisoning is reported by Dr. Sozinsky (Philadelphia *Medical News*, November 3, 1886,) another by Prof. Mitchell (*Thrapeutics*, Philadelphia, 1850.)

Blythe, in his work on *Poisons—Their effects and Detection*, reports two cases of poisoning by picrotoxin. In 1829, several men suffered from drinking rum which had been impregnated with *cocculus indicus*; one died, the rest recovered. In the second case, a boy, aged 12, swallowed some of the composition which was used for poisoning fish, the active principle of which was *cocculus indicus*; in a few minutes the boy experienced a burning taste, he had pains in the gullet and stomach, with frequent vomiting and diarrhœa. A violent attack of gastro-enteritis supervened, with fever and delirium; he died on the nineteenth day.

The two cases mentioned by Blythe, are

certainly not clearly established as being examples of picrotoxin poisoning. In fact the case of the boy who died on the nineteenth day after taking cheese supposed to have been covered with powdered *cocculus*, had very few of the symptoms of picrotoxin poisoning. This leaves but three fatal cases, aside from the one just reported, that an indisputable cases of picrotoxin poisoning. Although of not much practical importance, yet a brief study of its natural history, physiological action, toxic effects, therapeutic applications and *post mortem* changes will not be entirely without interest.

The *cocculus* is a native the Malabar coast, and Eastern Insular and Continental India. "*Cocculus indicus*, as found in the shape, is roundish, somewhat kidney-shaped, about as large as a pea; having a thin, dry, blackish, wrinkled exterior coat, within which is a ligueous bivalvalar shell, enclosing a whitish, oily, very bitter kernel. It is without smell, but has an intensely and permanently bitter taste. It bears some resemblance to the bayberry, but it is not quite so large, and may be distinguished by the fact that in the *cocculus indicus* that the kernel never wholly fills the shell." Picrotoxin, the only active principle that has been made use of in indicus, is poisnous and given to dogs in doses from five to ten grains, produces death, preceded by violent tetanic spasm, which, according to Dr. R. M. Glover, and very similar in character to those produced by flowers by section of the corpora quadrigemina and cerebellum; being attended with backward and outward rotary movements and tetanic spasms.

Dr. Caichton Browne, by carefully made experiments, has shown chloral hydrate to be antagonistic to the action of picrotoxin. So also and the anæsthetics and all relaxing and motor depressing agents antagonistic to its convulsive action. The action of strychnia is very similar, but differs somewhat in the character of the spasm. In strychnia poisoning the spasm is of a tetanic character, the action of the cerebrum is not suspended until shortly before death. In picrotoxin poisoning a feeling of drowsiness precedes the convulsion and increases the profound comæ with their continuance, and the spasms are of both a tonic and clonic character.

Recent experiments seem to show that the poison acts on the spasm and vagus centers in the medulla, and on Setschenow's inhibitory center. Roeber finds that the electrical reaction of the nerve and muscle remain unchanged, proving the effect of the poison is expanded on the center and not the periphery. Bartholow, together with several other authorities, states that the heart is in diastole, the cavities fall; the capillaries at the periphery empty; while the *post mortem* in the case reported shows the very opposite condition to exist. Bartholow also affirms that it is a non-irritant to the gastro-mucus membrane, which is quite improbable because of its almost certainty to produce nausea and vomiting. A portion of the poison remains in the blood, as is shown by the fact that flies are poisoned by eating it.

Cocculus indicus has long been used in India to stupify fish in order that they may be caught. It has been put to the same use in this country and in Europe. There have been no cases reported of any unpleasant results attending the eating of the fish caught in this way.

An ointment made of the powder has long been used by the laity to destroy lice in the hair. It is claimed to be quite efficient in curing *tinea capitis*. Being a cerebro-spinal stimulant, it has been used in the treatment of a large number of diseases, but, being possessed of so little real value, it is now never used except as a local application for the destruction of vermin.

The Causes of Intestinal Diseases of Children in Hot Weather.

Read before the Topeka Academy of Medicine and Surgery, at Topeka, May 5, 1891.

BY F. W. BAILEY, A. M., M. D., TOPEKA, KAS.

The above is the subject assigned to me for this evening. I will not attempt to bring up an array of statistics to prove points that are universally conceded, but will only state a few general facts in order to bring the subject before the society for discussion, and will also make some references to the most recent researches as to the causes of those summer

intestinal troubles, which annually terminate so many young lives.

Every recurring season brings its influences for weal or woe to the human race. From time immemorial mankind has watched the seasons as they come and go with combined feelings of hope and dread, and in their ignorance and superstition have ascribed to the pleasure or vengeance of the Gods whatever of good or ill befell them. But we of more modern times discard superstition. We trace the connection between cause and effect, and know that what is sometime called a providential taking away, is nothing more nor less than the penalty of the violation of some of nature's immutable laws.

The diseases most peculiar to the summer season are intestinal diseases, affecting individuals of all ages and conditions; but it is more especially the intestinal diseases of children that concern us to-night. The various names by which these complaints are designated are entero-colitis, intestinal catarrh, summer complaint and in the most severe and aggravated type, cholera infantum. But they all refer to the same local lesions and are accompanied by the same general symptoms, in greater or less degree.

In regard to their etiology, the causes which favor the inception and development of these disorders may be divided into two classes—the predisposing and exciting. Among the former or predisposing causes I will include all those which can be traced directly to the individual, such as errors of diet, dentition and impaired constitution, from hereditary taint. Among the latter or exciting causes will be included all those which are due to extraneous influences, such as excessive heat, impure air and unhygienic surroundings. First then in regard to errors of diet and the part it plays in the production of these diseases. No one will pretend to deny that as a general rule the proper and most suitable nourishment for the new born child is the secretion of the maternal breast. Nature has provided a nutriment that is accurately adapted to its frail and delicate digestive organs, and in the perfection of arrangement has observed the utmost nicety and exactness in balancing the scales, on the one side of which is represented the requirements of the infant, and on the other, the product of the breast; and all the subtle arts of chemistry and the refined methods existing in our modern laboratories are not capable of producing an imitation sufficiently exact to form a perfect substitute. When the child is deprived of this, its natural means of nourishment, ill consequences are more liable to follow than when normal conditions are observed. Statistics show that infants nourished at the breast, furnish the smallest quota of those who die of summer complaints, while by far the largest percentage of deaths is to be found among the artificially fed. Of one thousand recorded cases of these diseases, thirty deaths occurred among the breast fed; 287 among those fed upon a mixed diet; and 383 among those who were confined to artificial foods. Under this head of errors of diet are also included, over-feeding, improperly prepared foods and the ingestion of substances unsuited to the age of the child. These causes operate by producing a failure of nutrition as well as by producing a mechanical irritation in the intestinal canal which enhances the liability of the child to succumb to deleterious external influences. In regard to dentition as a contributing cause, it can be truly said, that there is no instrument or mechanism so delicate and sensitive and susceptible to impressions as the constitution of a teething infant. Though a physiological process, it is capable of exciting a condition of nervous tension that finds an outlet in an increased secretion of the intestinal glands, leaving the canal in a condition to invite the operation of unfavorable agencies. That an impaired constitution from hereditary taint is an etiological factor among the predisposing causes needs no demonstration, as it is a self evident proposition that such a child will more readily yield to disease, than one that is without taint or blemish.

Among the exciting causes we have mentioned high temperature, impure air and unsanitary surroundings. Statistics show that infant mortality bears a direct ratio to excessive heat, and in all cities where a record is kept of the death rate, it is found that during the months of July and August or in other words during those months in which the

greatest elevation of temperature prevails, an extremely high percentage of deaths occur, in comparison with that of other months. Just what particular agencies are brought into activity and developed by means of this high temperature and the existence of which is capable of producing such direful results, is the question now under consideration.

That high temperature alone is not the sole cause is evidenced from the fact that these diseases are far more prevalent in some localities than in others situated in the same degree of latitude where the temperature is equally high or even higher. It will be admitted then that excessive heat, though not the only factor, has its contributing influence in the etiology of summer complaints. We will next consider impure air and unsanitary surroundings as an element in the production of these diseases. Pure and wholesome air is essential to the health and well being of every one, but especially so to the young child, all of whose forces are centered upon the one object of growth and development.

It is unnecessary to resort to facts in order to prove the contaminating and deleterious influence of an atmosphere that is laden with the emanations from sewers, drains, decaying animal and vegetable substances, and refuse matter of any kind. The ill consequences of such an atmosphere are too familiar to compel me to cite particuliar instances, in order to demonstrate this assertion, and cases have fallen under the observation of every physician which present a history of this kind. Therefore I will merely state the general proposition that uncleanliness, filth and the accumulation of dirt and waste products in the neighborhood of domicils, is at all times a source of infection and a breeder of disease; but when there is added to this the influence of high temperature in favoring decomposition as well as its depressing effect upon the human organism, it is not surprising that so many succumb.

The inhalation of noxious effluvia is capable of causing a diarrhœa in the adult. In large cities the greatest infant mortality is found to obtain in those quarters that are inhabited by the poor and lower classes, where the least attention is paid to cleanliness and where unhygienic and unsanitary conditions are most liable to exist.

A removal of the offending cause and disinfection of the premises is usually followed by improvement in the cases already existing and a largely diminished number of new cases. All these facts go to show that the deleterious agent, whatever it may be, is capable of being conveyed through the air, some distance from the original source, and if a proper soil is found and proper conditions exist for its development, will flourish and produce its ill consequences. Now, if any one of these causes which have been named, is capable under certain circumstances of producing these intestinal troubles, a combination of all of them will present an array of forces whose attack is well nigh overwhelming and irresistible. The united influences of excessive heat, impure air, and improper food, together with the increased receptivity of the organism induced by the period of dentition, are certainly sufficient reasons to account for this terrible loss of life that occurs among infants every summer season.

Now while we have examined in a general way into the conditions that are most favorable to the origin and development of summer complaints, we have not yet arrived at any definite conclusion in regard to the specific cause. The germ theory of disease is the prevailing sentiment in the medical world at the present day. The light that has been thrown upon this subject by recent investigators has cast its illuminating rays in every direction, so that many diseases whose etiology has hitherto been involved in obscurity, uncertainty and doubt, have been found to bear towards these germs the relationship of effect and cause. Applying the germ theory to the diseases now under discussion, we find that every condition exists that is essential to such a hypothesis.

Germs and bacterial organizations are found every where; in the air we breathe, in the water we drink and in the food we eat. In fact it is utterly impossible to eliminate them entirely from the system, or to prevent their gaining an entrance into the alimentary tract. But under ordinary circumstances, they are harmless. Living and healthy tissues present a cer-

tain amount of resistance, variable in different individuals, to their patho-genic powers. But when they are present in greatly increased numbers and find a soil suitable for their development, and when the resisting capacity of the individual is below normal, then they produce their legitimate results. It is probable also that ptomaines are developed and exercise their poisonous effects upon the system. These are animal alkaloids found in bacterial cultures and are supposed to be a product of the nutritive forces of the bacterium. Observations have been made in districts where intestinal diseases were prevalent, upon the number of bacteria in the atmosphere of such districts, as compared with that of others that were not affected, with the result that the number found in the infected district exceeded by many times that found in other localities.

Given then excessive heat and unsanitary surroundings, we have the conditions necessary for the development of germs outside of the body. Add to this such a soil as in found in the intestinal tracts of children, especially under the age of eighteen months, whose organizations present at best, a small degree of resistance to noxious agencies, and who being over fed or artificially fed are incapable of properly digesting the contents of the stomach, allowing masses of undigested material to pass on into the intestinal canal, the presence of which is not only irritating to the mucous membrane, but also forms suitable material for putrefactive agencies and fermentation, and when in addition to this we have the excitement attendant upon the period of dentition at which time there is an increased functional activity and development of the intestinal glands and follicles, I say with all these causes united, there is formed a combination of forces which nature cannot easily withstand.

In my opinion then the fermentation and putrefactive changes due to the presence of bacterial growths, and micro-organisms are the immediate and specific cause of most of the bowel troubles of children designated as summer complaints, and in their treatment I have derived the most satisfactory results from the administration of those remedies which have for their object the removal of these germs and the prevention of further fermentation and decomposition.

DISCUSSION.

Dr. Seabrook—The question narrows itself down to low vitality, bad surroundings, improper food, i. e., food which the child cannot digest. Fermentation then is a result rather than a cause of the disease.

Dr. Magee, after complimenting the paper, mentioned the variation of temperature as a cause, the children being improperly clothed often for the changes in temperature. These changes in this climate naturally produce catarrhal diseases. Improper handling of children is often a cause of their sickness. They should be kept quiet after being fed and not jostled about.

Dr. McClintock thinks the whole may be summed up in micro-organisms or their products. Of course all these other things enumerated add. We have these diseases more in the summer months because of the greater increase of micro-organisms. Such diseases might in a great measure be prevented by sterilizing the food. Adults use sterilized food and children should use food sterilized or cooked. Milk should be sterilized soon after being taken from the cows. If you wait, while you are able by sterilizing to destroy the micro-organism in the milk, you do not destroy the ptomaines.

Dr. Righter spoke against the habit of feeding children at the table. We should avoid as much as possible feeding babies the various artificial foods, none of them as good as the mother's milk.

Dr. Colcord—Given the case of a healthy child nursing its mother you occasionally have intestinal trouble in hot weather. Believes somewhat in the germ theory but thinks on account of the heat the child becomes thirsty, water is withheld, and when the child nurses it overloads its stomach and fermentation takes place and in this way the disease is produced.

Dr. Pelton spoke of the theory of some physiologists in regard to the tox-albumens and ptomaines entering the blood and acting on the white blood corpuscles. Still children with good vitality resist this. When the vitality is lowered the ptomaines produce vomiting, intestinal trouble, etc. Dentition is a cause,

the dental nerves act with the sympathetic, and these again on the vaso-motor and trophic nerves.

Dr. Stewart—Improper feeding and care of the mother is a cause. The various cachexia, such as syphilis, tuberculosis, etc., a cause. In a healthy child improper feeding brings on indigestion, convulsions, &c. Feeding food that has undergone fermentation, a cause, improper water also a cause—water should be sterilized.

Dr. Munn thinks many cases are caused by the nervous condition of the mother—such as anger and emotion. Asks what improper food has to do with such cases.

Dr. Peers thinks there are many causes besides germs, yet thinks these very often the cause.

Dr. McClintock explained that while he thought the germs were the principle cause, he did not wish to have it understood that there were no other causes.

Dr. Bailey accepted the points raised without discussing them in detail.

Dr. R. E. McVey being absent there was no paper read on the treatment of the above disorders in children, but a desire being expressed for the discussion of the treatment Dr. Magee was asked to open the discussion.

The first requisite in the way of treatment is to ascertain the cause and treat according to the cause; there are some general rules that can be applied to most cases, sterilize the milk, where cows milk is given, see that the cow is healthy, see that the milk is not agitated in transit, sterilize the milk early before fermentation commences.

Dr. Munn—It seems to be fashionable just now to give antiseptics, but I am not satisfied that this is the most effective treatment. It has not been so with me. Most of these troubles are caused by an acid condition and we should give alkalies, chalk mixture, bismuth, deoderized tincture of opium, give me good results. Keep the stomach quiet by giving no food for several hours.

Dr. Colcord believes largely in the use of alkalies.

Dr. Lindsay thinks that while deoderized opium, etc., eases the child, it is not curative, when he sees a child that has been treated in this way he gives a dose of oil, then washes out the bowels.

Dr. McClintock reverting to the causes, said he did not understand how, as spoken of by Dr. Pelton, white blood corpuscles destroyed the germs. The corpuscle can close around the germs but he does not understand how it can effect the ptomaines or products.

Dr. Pelton—The cells have the power of digesting the germs, this has been proven by physiologists. In regard to the ptomains and tox-albumens, the blood by its chemico, vital action produces changes on these substances, when in a moderate quantity, that renders them inert. There are two factions of pathologists, one faction believe that the white corpuscles or phagocytes have power to destroy bacteria, the other faction that these are destroyed by the *serum* of the blood. That some such action takes place seems plain, for a child of good vitality will resist the effects of the germ, while another child similarly surrounded and nourished, but with a lower vitality will be attacked with the disease.

Dr. Guibor has thought for several years that the cause of the disease was a germ, i. e., he has been led to believe so by deference to authority, and when we get rid of the germ we cure the disease. But we have the disease in all climates and under all conditions. We find it in babies nursed by the mother as well as in those fed on cow's milk and other artificial foods. There seems this evening to be a dearth of treatment suggested, such as prophylaxis, etc. Thinks in the way of treatment bismuth stands pre-eminent. The methods resorted to by the profession are somewhat empirical, sometimes you cure with one remedy and sometimes with another. Thinks in the main we have not improved in our treatment of the disease.

Dr. Lindsay thinks the mortality less than formally and that it is due to improvement in treatment.

Dr. McClintock—If we have not improved in our treatment a very great responsibility rests with the physicians, but we certainly have improved.

Dr. Stewart—The disease is certainly less fatal than formerly, and this was brought about too by the present mode of treatment.

Referred to the experiences in the hospitals of the missions in India, Egypt and other countries. Those treated in the hospitals and according to our present treatment, do better than those in the huts and under the old treatment.

Dr. Sheldon—Every case should be considered by itself and treated in accordance with the pathological indications. Those cases of nervous origin, of course have no germs as a cause, yet a great majority of cases can be traced to a germ origin. Empty the bowels by caster oil injections or what not, I believe we can use antiseptics to advantage, there are remedies that will render the germs inert, Ipecac, bichloride, etc., act by increasing the secretions, and these in themselves were antiseptic, and by their action destroy the germs. Those cases caused by irritation from the teeth can be relieved by the various means of relieving the irritation. By bathing, equalize the circulation and keep down temperature. As to remedies listerine and glycerine, have given me good results. The mortality is much less than formerly both in private and hospital practice.

Dr. Munn did not believe in giving cathartics and injections when the stomach and bowels would reject them almost at every effort. Insisted that opium carefully given did good and not harm.

Dr. Pelton does not see the use in washing out the stomach or bowels, for both are already washed by the secretions, which have been ejected for hours. In those cases where there is collapse, uses tepid cloths across the bowels, the absorption of the water from the cloths replaces the fluid of the blood that escapes by transudation from the intestines. Gives carbolic acid at times, not for its antiseptic action but it acts by numbing the peripheral nerves.

Dr. A. L. Hamilton thinks we shonld use opium for the same reason that we use it in pneumonia, to act on the nerves of the general system and to quiet the nerves of the intestinal tract. Uses also pepsin and bismuth.

Dr. Colcord asks what effect solar heat had as a cause.

Dr. Bailey answered that it was a partial cause but not a potent factor.

Dr. Guibor said that what he had said was principally to bring out discussion and not to antagonize the present method of treatment, for there was much that was good in it. He denied however that lavage of the intestines was a recent treatment, it had been used more than ten years ago Renewed his faith in subnitrate of bismuth.

SOCIETY PROCEEDINGS.

Topeka Academy of Medicine and Surgery.

This society met in regular monthly session at Topeka, Kas., in Lincoln Post Hall, Tuesday evening, May 5, 1891.

Present Drs. T. W. Peers, president, Guibor, Bradley, Magee, Limmer, Seabrook of Burlingame, Cannon, McClintock, Longshore, Colcord, Gibson, Hamilton of Auburn, Pelton, Stewart, Munn, Sheldon, Righter, Plummer, Bailey, Teft, Miner, Alexander and Rodgers.

The minutes of the previous meeting were read and approved.

Dr. A. L. Hamilton of Auburn, was elected to membership.

Dr. F. W. Bailey read the only paper of the evening on "Causes of Intestinal Diseases of Children in Hot Weather." See discussion following paper in this number of the JOURNAL.

An amendment was offered by Dr. Munn to the constitution to the effect that members in arrears for dues for two years be suspended. To be voted upon at next meeting.

Dr. Sheldon moved that the president appoint at his pleasure delegates to the State Society. Carried.

Adjourned to meet first Tuesday evening in June.

D. F. RODGERS, M. D.,
Secretary.

State Medical Society.

The twenty-fifth annual session of the Kansas Medical Society met in the Board of Trade rooms, Wichita, May 13, at 8 P. M.

Dr. A. H. Fabrique, chairman of the committee of arrangements called the meeting to order and in a few well chosen words intro-

duced Hon. J. B. Carey, mayor of the city, who in behalf of the citizens of Wichita, extended a cordial greeting as follows:

Gentlemen of the Medical Fraternity.

It affords me great pleasure to welcome you to the Forest City of the Valley, and in so doing I think I but voice the sentiments of our people. I trust that your stay among us may be pleasant and your meeting profitable to the profession. Yours is a noble calling, and it is my hope that your discussions here may prove a blessing to diseased and afflicted humanity. Wichita feels highly honored by your presence, but Wichita is proud of her home doctors, and she would hardly be like herself to admit the possibility of their becoming any wiser, but, as the chief executive of the city, I would suggest that in case you find any of them lacking in wisdom, a little advice from their brethren might not be amiss. If you find them wanting in medical skill, I trust you will attribute it to the fact that Wichita being such a healthy city they seldom have an opportunity to gain knowledge by experience, but are compelled to rely almost wholly on books for their medical information. Again gentlemen, I bid you welcome to the Peerless Princess.

Dr. J. S. Foote, Secretary of committee of arrangements, welcomed the Kansas Medical Society and South Kansas Medical Society as follows:

Mr. Chairman and Physicians of Kansas.

We greet you, gentlemen, with open arms! As bright as the days of blossoming May, as serene as the calm blue skies of exalted spring, as animated as the songs of the mated birds, as propitious as the waving fields of growing wheat, as glorious as the opening buds of the pretty flowers, as joyous as the music of awakening nature are the auspices under which the physicians of Wichita welcome you to their hospitality to-day. The dreary scenes and winds of winter have forgotten their solitude and requiems, while the dismal features of la grippe have been translated to the imagery of an unpleasant memory. Another year has added its events and experiences to history and we are here for all of the benefits and pleasures obtainable. Gentlemen, we are glad to see you. Our pleasures are your pleasures. Were we the proud possessors of the fair Wichita, or even of this vast domain of amazing possibilities which encircle the magic center upon which we now stand, we would place them all at your disposal, cut loose the cords and cables which bind you to discouragement and dispair and help you in the appropriation of their joys and diversions; and then we would call down from those unseen realms where the muses sport in ecstatic fancies the happy spirit that prompts their better strains and makes that spirit queen of festivities; while with the music of his lyre we would induce Orpheus to erace from our minds all recollection of the aches and pains, of the pills and plasters, of the quinine and calomel which harass the population of a progressive era—forgetting the diplomas which made us vain and the valedictories which made us sad—we would "throw physic to the dogs" while we danced and sang to the music of the grand orchestra invoked. Who needs a holiday more than the overworked physician? He is a prisoner confined within the narrow boundaries of a circle whose radii are constantly shortening. He hears the cries of childhood on one side, he hears the sighs and groans of adult life on another, he hears the unfavorable comments of enemies on another, he hears the sobs of affliction on another. He deals with the sick and unfortunate, sees the clouds rather than the sunshine of life and, worn out, soon forgets what liberty is. Let us for a brief time forget the cases which have converted our nights into tedious hours of anxiety, let us think no more of the ills of a disordered public, let us not dwell upon the chicanery of enemies, let us banish the heart rending scenes of the death bed and let us step out from them all and realizing once more the grandeur of liberty raise three rousing cheers for the occasional opportunities of recreation, and may the gentle breezes, perfumed by the breath of the sweetest flowers, as they are wafted over the southern plain, whisper amen. But is this merely a holiday devoted to the interests of pleasure alone? No. There is another feature of this convention—a grander one, perhaps, a feature that calls you from routine labor, a feature that calls you from pleasure to loftier themes, a feature that elevates you to the higher realms of thought where reason argues before judgment and directs your minds in a channel where perhaps the vast majority of people do not desire to go. That feature is expressed by the program which our secretaries have provided for this occasion. This convention has issued a call to every true minded physician in the State of Kansas to come forth and renew his loyalty to the high calling which he has chosen. To pleasure then add knowledge. Let every hour which we pass together add something to our strength. We are holding consultation, and what grander medical conclave holds session than that of the Kansas and South Kansas Medical Societies, when from the north and from the south, from the east and from the west, they sit down together in one harmonious body to deal with the intricate medical questions of this advanciug age. A star of the east may appear brighter than a star of the meridian. The distant

Jupiter may vie with the remote Saturn, and both may ignore the neighboring Venus; but somehow Venus brightens the eye and throngs the mind with poetic images none the less as she twinkles in the diamond studded vault of night. The nearer the star the brighter the light. We may not emulate the remote stars of wondrous magnitude and mighty orbit; but we may add lustre and importance to the nearer, lesser planets whose orbits resemble ours. Let us then endeavor to elevate ourselves into that higher sphere where the petty trials of perturbed spirits are not known; where the purest atmosphere will animate our common being and where the satisfaction of a duty well done will crown the labors of a passing hour. Let us be monument builders. Let us strive to erect a magnificent structure which will not crumble while we gaze with dreamy eyes into the fantastic realms of brighter days. Let us build as though the eyes of posterity were upon us. Let us labor for the generations unborn as our progenitors have labored for us.

Gentlemen, at the twenty-fifth annual meeting of the Kansas Medical Society, let pleasure and knowledge go hand in hand. We extend the congratulations of the hour. Enjoy yourselves. Be merry. Be wise. We offer you this prescription: R. Lætitæ et Scientiæ a. a. p. e. M. S. Bib. p. r. n., which translated means: Of joy unrestrained and knowledge take equal parts, mix them and drink as the occasion may require. You must take it, gentlemen, if you wish to be better. And now if we had the power to convert the fragrance of flowers into English letters, the songs of birds into English words, the balmy breezes into English sounds the luxuriant growing grain into English phrazes, the tapestries of unfolding nature into English sentences and the grand and beautiful combination of all into an English peroration we would make the brightest and best word of all this array of harmony—welcome:

With open arms we greet you brothers,
  Welcome to our pleasures here!
Doctors to our State and others,
  Welcome as the blooming year.

Unrestrained and re-united,
  Let us all with mirthful glee
Raise the emblem we have plighted
  To our grand society.

Leave behind all cares and sorrows;
  Take the pleasures of to-day,
Let the business of to-morrow
  Steal not one delight away.

Let the hours bring forth no sadness,
  Let the days bring forth no care;
Let the doctors full of gladness
  All our mirth and pleasures share.

All those hopes we fondly cherished,
  Soon may fade and pass away;
Let us e'er the substance perish
  Seize a respite while we may.

As the years depart forever
  Thoughts of sadness will arise;
Let us then with strong endeavor
  Strengthen all our hallowed ties.

Always loyal to our banner—
  Honest both to friend and foe,
One has gone whose genial manner
  Cheered us all one year ago.

Fervent as a glowing ember,
  Always welcome at our glees,
He was officer and member
  Of these two societies.

Let the flowers express our sorrow,
  Let their silent language tell
That he lives with us to-morrow
  Though we say a last—farewell.

Take of knowledge and of pleasure
  Equal parts and mix them well,
Of the mixture take full measure
  And omit your calomel!

May the fragrance of the flowers,
  May the songs of singing birds,
Tend to make these happy hours
  More delightful far than words.

Welcome to the State Convention!
  Welcome to South Kansas, too!
Welcome—without one dissension—
  Welcome one and both of you.

Dr. A. H. Fabrique then presented President J. E. Minney with a gavel made of hard rubber with heavy gold bands, from the citizens of Wichita.

President Minney expressed thanks for the scepter of authority in the meeting and to the committee for the auspicious circumstances under which we had convened. He briefly reviewed the history of the society, showing a gradual growth in both quantity and quality of work accomplished.

The reading of minutes was dispensed with and the roll called to which the following gentlemen responded:

Drs. J. F. Axtell, Newton; G. Boyd, Newton; L. A. Buck, Peabody; G. M. Bibbee, Wichita; A. H. Cordier, Windom; F. F. Dickman, Fort Scott; George Emerson, Winfield; A. H. Fabrique, James S. Foote, C. C. Furley. Wichita; B. E. Fryer, Kansas City, Mo.; Chas. Gardner, Emporia; C. H. Guibor, George W.

Hogeboom, W. S. Lindsay, W. E. McVey, J. E. Minney, C. A. McGuire, M. O'Brien, W. H. Righter, M. B. Ward and G. A. Wall, Topeka; W. S. Harvey, Wichita; L. D. Jacobs, D. F. Longenecker, Emporia; L. J. Lyman, Manhattan; J. Martin, Marion; R. J. Morton, Green; J. E. Oldham, Wichita; A. Potter, Paola; J. H. Payne, Delphos: G. C. Purdue, Wichita; A. B. Peters, Mankato; W. A. Phillips, Salina; J. E. Sawtell, Gypsum; O. B. Whitecar, Peabody; W. E. Shastid, Wichita.

ABSORBING POWER OF UTERUS AND VAGINA.—Dr. L. Landau, (*Berlin. klin. Wochenschr.*), has found that the vaginal mucous membrane has but a feeble absorbing power, while the uterine mucous membrane possesses that power to a very high degree. This fact is of extreme importance in gynæcology, as strongly medicated tampons may fail to act if inserted into the vagina, while if passed into the uterus they may set up grave complications. The vaginal mucous membrane is really skin, and becomes true dry skin in cases of prolapse. The free surface of the cervix has hardly any power of absorption. Dr. Landau demonstrates from cases how different it is with the endometrium. After the introduction of a solid ten per cent. preparation of resorcin into a uterus, severe and long standing uterine colic was set up. The introduction of a one per cent. cocaine compound caused the pains to cease. The cocaine was absorbed and by paralyzing the sensory nerves it produced anæsthesia.

A LOCAL ANÆSTHETIC.—

℞.	Chloroformi	ʒx.
	Etheris	ʒxv.
	Mentholis	ʒj. M.

Apply this by spraying. One minute's application completes anæsthesia of the skin and neighboring tissues and will persist from two to six minutes; this suffices for many minor operations, such as opening an abscess of the cervical glands, incising a deep seated whitlow, or excising an epithelioma of the lip, &c.—*Lenard's Illustrated Medical Journal.*

A CONNECTICUT editor gives an account of a man "who blew out his brains after bidding his wife good bye with a shot gun."

Kansas Medical Journal.

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W. F. SAWHILL, M. D., Concordia.
D. F. ROGERS, M. D., Topeka.

TOPEKA, KANSAS, JUNE, 1891.

Alcoholic Insanity.

Medical authorities commonly divide alcoholic insanity into status inebriosum and alcoholism—acute and chronic.

The action of alcoholics is not considered insanity, either by the medical or legal profession, until its habitual or period use has caused more or less permanent modification of the brain cells, manifested by characteristic mental phenomena. In this condition though the microscope may fail to reveal any pathological changes the continued mental observation is considered sufficient evidence of their presence, due to defective cell nutrition—the condition often remaining after the drink habit is abandoned.

This permanent observation is noticed first in deranged nomral action, deranged power of self-control, disregard of duty and of the rights of others and is followed by defective mentality and muscular co-ordination. The only difference between the symptoms and those of a transient drunk is their permanence.

The spirit may be immortal and when loosed from the body its action may be independent of matter. Of this the physician knows noth-

ing. He only knows that while united mind acts through matter, and that its action is dependant upon the condition of the instrument through which it gathers, correlates and evolves thought; that whatever injures the functions or structure of that portion of the brain through which mentality is effected is manifest in deranged and irresponsible mental action; that while traumatism and permanent pathological changes produce directed mental and moral action, a large number of drugs produce the same results, and that though the deranged action may be transient, lasting only during the therapeutic action of the drug, the insanity is as positive and real as though dependent upon permanent and demonstrable pathological expressions.

Thus we find alcoholics, when taken in excessive quantities producing a temporary insanity in every respect parallel with that permanent insanity, consequent upon their habitual use. In all alcoholics H. is greatly in excess of O., and wherever, in unstable combinations, this excess exists the H. demands, at whatever cost, O. When such a combination enters the circulation it deoxydizes the various tissues with which it comes in contact, deranging their functional action and leaving an excess of C., thereby producing an anæsthesia that ranges from slight paresis to complete insensibility and coma, and loss of mental and muscular co-ordination, manifest in the erroneous deduction from impressions made upon the senses and the staggering gait of the drunken man, varying with individual idiosyncracy. When this condition obtains, whether produced by alcoholics or other agencies, whether lasting for a moment or a lifetime, should the individual be held responsible for his utterances or his acts? Is not the transitory insanity as pronounced while it exists as if permanent, and the individual as powerless to arrive at correct conclusions from given premises and as irresponsible as though the victim of chronic inebriaism or mania-apotu? Why then the medical and legal distinction?

A CASE of typus fever occurred in New York at Bellevue Hospital, the diagnosis was not made until just before death.

Thunder Storms.

There is a popular belief that electricity sours milk. Prof. Tolomie found that by passing electricity through milk it remained sweet for several days longer than milk not thus treated—a hint to milk men. Holtz found that by passing electricity immediately over the milk acidulation was hastened. Acidulation is probably due to the presence of a ferment (bacterium) that converts it into lactic acid and grape sugar, otherwise the ozone generated by electricity would tend to prevent decomposition. Prof. Lodge believes the change due to atmospheric dust precipitated by electricity. The dust containing more or less organic ferments precipitates putrefaction in milk, meats and other organic products, while the moisture always present during thunder storms tends to the same results.

Epilepsy.

The most satisfactory results are obtained by combining the bromides with some vegetable agent of producing cerebral anemia. The combination also tends to produce tolerance. Among the best agents are the calabar bean, belladonna and cocculus indicus or their active principles, combining the bromides tends to prevent bromism, while it increases their physiological action; and while the potassium salt produces diarrhœa the sodium constipates. A very good formula increasing the salts as required is:

℞.	Brom. of ammonium	grs. v.	
	Brom. of sodium	grs. v.	
	Brom. of potass	grs. x.	
	Tinct belladonnæ	gtta x.	M.
	Aromat Elix.	ʒii	
	Aquæ puræ	grs. ʒi.	

Sig. Three times a day.

TASTELESS SOLUBLE QUININE.—To destroy the bitter taste M. Lutz recommends:

℞,	Sulph. quiniæ	0.50 grain.
	Dilute Sulph. acid	0.50 grains.
	Essence of mint	5 drops.
	Sat Sol. sacharin	10 grains.
	Distilled water	90 grans. M.

—*La Tribune Medicale.*

A Plea for a more Rational System of Medical Education.

We are in receipt of *a reprint* from one of the many exchanges in which the article with the above title appeared. Whether it was presented simultaneously to so many journals on account of its supposed intrinsic merit, the hopelessness of the cause it advocated, or as an advertisement, each reader will decide for himself.

The paper begins with noticing the general move in the direction of medical legislation, and the urgent demand for the just and proper legislation of the practice of medicine, and thinks it significant of the increase in competition among medical colleges and physicians and "the growing metamorphosis of the art of medicine into the science of medicine." We do not think medical competition any greater to-day than a half a century ago—perhaps not so great. Less than that long ago Kansas was known as the great American desert; now she has a population of a million and a half and one medical college. At that time Missouri, with no greater population had half a dozen. But mere competition does not tend to a proper regulation of medical teaching or medical practice. St. Louis has half a dozen schools which should make sharp enough competition, and yet she has one school from which we have known a diploma to issue to a party who was only out of this State a fortnight. When any business is urged beyond its legitimate demands the tendency is to mushroom growths, some short, cheap way to glory, and legislation follows to control this tendency.

Those who are teaching medical science or practicing medicine for the benefits that accrue to the student and the people as well as to themselves, seeking to give *quid pro quo*, stand upon the watch towers, and recognizing the wrong of cheap school and cheap doctor, legitimately seek through legislative enactments to force them up to the standard demanded by "the growing metamorphosis of the art of medicine into the science of medicine."

We agree with the author of the paper that "our nineteenth century is a wonderful one," because the iconoclasm of liberty breaks the images that bind us to a dead past, that we may enter into the freedom and growth of a living future, that art may be metamorphosed into science and that science may broaden, deepen and define the fields of knowledge. Its "*vox populi vox Dei*" means indeed that "the demos rule" and not the demons, that the people are uplifted and enlarged by liberty, and no where more than in things essential to health and life. It means "good work, true work, just such work as is required." Passing the *ad captandum*, clap-trap of the paper that would compel the good husbandman to dispense his bushel of grain for the price of a bushel of chaff, and that ranks with the shysters of the cheap school, or no school, who would compel the doctor to advertise, the noble men of the profession who stand in the vanguard seeking to avert from the people the stroke of death whether aimed by the cheap doctor or some less pestiferous microbe, we come down to the meat in the cocoanut.

"The contest for a three course qualification is far more in opposition to democratic principles than what has been mentioned," that is if "the democratic principle" is as understood by the son of Erin, who wrote back "Come to America, Pat, where you can do as you dom please,and whisky three cents a dhrink," but if the democratic principle means liberty to do all possible good without possible harm, the shoe is on the other foot.

The statement that those who demand longer periods of graded study as a pre-requisite to graduation, would substitute time for quali fication is uncalled for and untrue.

The medical colleges that recognize that the old two course plan, where the *pleb* and the *senex* sat together, the one taking lessons in mensuration and logarithums while he was learning enumeration and addition and reading Homer, while conning over alpha, beta, delta gamma, and the other compelled to listen to the lessons in first principles when he would press on to higher knowledge, is a farce and must give way to graded courses, are in harmony with the convictions of every intelligent practitioner who has been compelled to apply his nose to that miserable old grindstone, and in harmony with the evolution of medicine from art to science. In the olden

time we skimmed the field in two courses of this hotch-potch style of teaching, but narrow as it then was, who does not recognize that it was only skimmed.

To-day the study of anatomy means going back to protoplasm, and building cell by cell the human form divine, until millions of these microscopic entities, each with an individual life, make the various organs and tissues with their varied functions and pathological differentiations, requiring for their comprehension a wide range of knowledge,and so on through the whole catalogue of the noble science of modern medicine, chemistry, physiology, etiology, histology, pathology, microscopy, bacteriology, materia-medica, therapeutics, practical and clinical medicine and surgery, obstetrics and gynæcology, diseases of children, ophthalmology, otology, laryngology, pschycology, medical jurisprudence and last, but not least, preventitive medicine, protecting alike against the baccili of ignorance and of barn-yards and back-alleys. With the vast additions made during the last quarter of "our wonderful nineteenth century," can scientific medicine be taught or attained in two courses of six months.

None of the advocates of recent advances in medical teaching have ever intimated that the degree of M. D., should be conferred with out a thorough examination, while they have decided that no college, whatever its facilities, and no student, however brilliant, can compass the ground in two six-month courses, they not only insist upon thorough examination before graduation, but favor examinations by State Boards, until the nation establishes a standard of qualification that shall be attained by all who seek to enter its life service, to be determined by examinations similar to those required before entering the medical department of the army and navy.

The State to protect its citizens against diplomas from colleges over which they can have no control, can only do so through boards of examiners.

As nearly an hundred American medical colleges have decided upon a three and four years graded course, while the University of Edinburg has adopted a five years course, such Philipics as the one under consideration can do little harm.

How Should Girls be Educated.

The above is the title of the address of the president of the State Medical Society of New York, Dr. W. W. Potter, and in the selection of his subject he emphasises the increasing interest of the profession in preventive medicine.

The doctor believes that the health of a race lies in the health of its mothers, and that their health depends upon their physical, mental and moral culture from childhood to well developed womanhood. He insists upon more outdoor life for girls, with plain, strong, warm and easy fitting clothes, shoes, with broad, low heels, including a plain, nourishing diet, a daily bath, plenty of sleep and cultivation of a cheerful temper, the emotional nature of the girl having much to do with the neuroses from which she so often suffers. As the period of her first climacteric approaches, her life should be in harmony with the special draft it imposes upon her whole organism. Home and school duties must be made light during the presence of this molimen, at first and always.

The usually over-crowded and illy ventillated public school room, with the admirable curriculum (?) of both public and private schools, that never recognize the "custom of women," with their systems of cramming and false stimulants to study, apparently considering the spiritual life a creation independent of the body the doctor thinks tend to disease and death rather than development and life.

This scholastic training being most rigid at a period when it should be most elastic, causes not only a life of anguish, but results in barrenness or if the woman proves fruitful it is with "travail."

The doctor says "The sexual system is the portal path of woman's organism; when it becomes disordered its pernicious effects pervade the very warp and woof of her being."

He says every mother should fit herself for the responsible duty of bringing up her daughters before she places herself in a position to have daughters. She must be properly educated in the exigincies of female life, and what opportunity does any of our schools give for such instruction—that she may guide her

children safely though childhood to womanhood.

Every physician who accepts the rôle of family advisor and fails to give the mother such advice as pertains to the well being of her family, is guilty of a neglect of duty. If as is frequently the case in the west the family has no one they can call a family physician, but get a new doctor for every new case the worse for them.

The doctor thinks the great burden of the proper development of the daughters rests upon the mother, and thinks we cannot to, strongly impress her with the importance of acquiring such knowledge as will fit her for this responsible duty.

New Journ a

The *Ophthalmic Record* edited and published by Dr. G. C. Savage of Nashville, Tenn., is before us. This new journal on specialism has a healthy, vigorous appearance. The first article by the editor, "The Harmonious Symmetrical Action of the Oblique Muscles in all Cases of Oblique Astigmatism," is worth more than the subscription price, $2. Dr. Price edits the department of Otology, Laryngology and Rhinology.

Both gentlemen are young men, full of energy, practical, observing and progressive, and we bespeak for this new journal success.

Phthisis.

The "Prevalence of Phthisis" was the title of a paper read by Dr. Bryce, before the State Boards of Health Meeting at Washington, D. C., May 2, 1891. He concludes:

First—That phthisis is a contagious disease.

Second—That on the assumption that that is true as health officers it was the duty of the society to treat it as such.

Third—That the treatment of the disease has in it all the characteristics of a sanitary crusade. To deal with the disease successfully it is necessary to go at it in a preventative way, as in treating diphtheria and other such diseases, by removing the cause.

NEVER put yourself in the power of a man who will kick a dog for fun.

Kansas Medical Society—Statistical History,

The following table is compiled from the secretary's reports of the registered attendance at the meeting of the society for the past thirteen years:

PLACE OF MEETING.	YEAR,	OLD MEM.	NEW MEM.	HON- MEM.	TOT'L.
Topeka,	1878	20	11	2	33
Atchison,	1879	47	97	2	147
Ilworth,	1880	65	23	5	93
Topeka,	1881	57	35	3	95
Emporia,	1882	41	23		64
Topeka,	1883	41	14	4	59
Wyandotte,	1884	44	14		58
McPherson,	1885	18	14		37
Atchison,	1886	43	19	4	66
Winfield,	1887	12	20	2	34
Topeka,	1888	40	45		85
Topeka,	1889	65	33		98
Salina,	1890	60	39		99
Wichita,	1891	140	34		174

The above table does not give the whole number of physicians in attendance at any one meeting, in all probability, but it does give them approximately and for one meeting as correctly as another. The visiting ladies in attendance and the exhibitions are not included.

It will be seen from the above that the last meeting was the largest ever held in the State. The next largest was held in Atchison in 1879. The largest accession of membership was at this meeting. The next largest was at Topeka and the next at Salina.

POMADE FOR ALOPECIA:

R.	Gallic acid	3 grains.
	Castor oil	20 grains.
	White vaseline	40 grains.
	Spts. lavender	15 drops. M.

Rub well into the scalp night and morning. —*Monin* (*L'Union Medicale.*)

ASTHMA:

R.	Tinct Stramonii	℥ij.
	Tinct. lobeliæ æther	℥j.
	Potass nitras	℥j.
	Spts. æther Nit.	℥ss.
	Tinct aromat	℥ss.
	Aquæ chloriformæ	℥ij. M.

Sig. Two tablespoonsful at bed-time and one if difficulty of breathing comes on.—*Journal of American Medical Association.*

American Medical Association.

The Washington meeting of this association held May 5 to 8, was an average meeting. The home of the association journal remains in Chicago.

Dr. Marcy of Boston, was elected president, and Dr. Willis P. King of Kansas City, first vice president. The next place of meeting, Detroit, Mich., although the nominating committee had recommended Hot Springs, Ark.

Delegates were elected to the Pan American Medical Congress. Dr. Minney was the elected delegate for Kansas. Dr. Schenck the committee on State Medicine of Kansas, and Dr. Sawhill, on necrology.

Kansas was represented by three delegates viz: Drs. Daily, Bidwell and Minney.

The section work in ophthalmology was above the average.

The Washington physicians acquitted themselves nobly in caring for the association. Owing to a change of time in the meeting, the American Medical Editors Association was served up in a banquet.

The American Association of Medical Colleges completed their organization and will make an effort to work for the higher standard of education, both from a literary and medical standpoint. The JOURNAL will publish the standard of requirements.

Eastern Kansas Medical Society.

The summer meeting of the Eastern Kansas Medical Society will be held in Lincoln Post hall Monday evening, June 8, 1891, at 8 P. M.

At the last annual meeting in April, the constitution was amended as follows, Dr. M. B. Ward introducing the resolution which was unanimously adopted by the society as follows:

Resolved, That the By Laws be so changed that the name of the society shall be the "The Eastern Kansas Medical Society," and the active membership may consist of physicians within the State instead of the present restrictions.

The following is the program for the June meeting:

1. "The best Methods of Prevention of Summer Diseases of Children,"
By A. B. MCCANDLESS, M. D. Holton.
Discussion opened by W. S. Pickard, M.D., Burlingame.
2. "Circular Enterorraphy with Demonstration."
By M. B. WARD, M. D., Topeka.
Discussion by Geo. M. Gray, M. D., Kansas City, Kas., Levi Horner, M. D., Lawrence, Kas.
3. "Hernia—Early Diagnosis and Treatment,"
By J. B. HIBBEN, M. D., Topeka.
Discussion by L. H. Munn, M. D., Topeka, L. Reynolds, M. D., Horton, Kas.,
4. "Albuminuria," By W. A. WILLIAMSON, M. D., Topeka.
Discussion opened by S. G. Stewart, M. D., Topeka.
5. "La Grippe," By J. H. VAN EMAN, M. D., Kansas City, Mo.
Discussion by W. L. Schenck, M. D., Topeka, J. P. Lewis, M. D., Topeka.
6. "Nymphomania," By L. R. KING, M. D., Junction City, Kas.
Discussion opened by J. H. Brown, Wetmore, Kas.
7. "Malaria as a Causative Factor in Disease and its Management,"
W. E. ASHBY, M. D., Quenemo.
Discussion opened by Wm. B. Dewees, M. D., Salina.

Please observe change of date of meeting from July, as heretofore, to June 8, to avoid the heated term and from Tuesday to Monday, so as not to interfere with physicians who are pension examiners.

Come and take part in our meeting.

Very truly yours,

R. S. MAGEE, M. D., Topeka,
Secretary.

L. L. TERWILLIGER, M. D., Lansing,
President.

A Poor Field.

SCOTT County Kansas, has but one physician, and he is now compelled to leave because of the following conditions: But one natural death has occurred during the past year; obstetric cases and accidents happen, but infrequently; and the atmosphere is so pure, and the people so generally healthy, that even an ordinary living cannot be made by one practicing the healing art. The population of the county is given at 1,260.—*N. Y. Med. Record.*

N. B. The above originally appeared in the KANSAS MEDICAL JOURNAL.

PROF. SENN in speaking of Koch's tuberculium says, it is absolutely faulty and can never be placed in the category of rationalism?

LITTLE THINGS.

DOCTOR! Were you at Wichita?

NEVER say a patient will die until he is dead.

INFLUENZA is prevailing throughout Britain.

THERE is no easy place on earth for a lazy doctor.

IN gonorrhœa, try a saturated solution of boracic acid.

"CONJUGAL love is not preserved in family jars.—*Texas Siftings.*"

DR. G. W. MOORE of Dwight, paid us a pleasant call last month.

REMEMBER the Eastern Kansas Medical Society meets June 8 in Topeka.

PIPERAZINE.—The new uric acid solvent is much thought of by those who have used it.

DANIEL MORTAN, M. D., of St. Joseph, has severed his connection with the *Medical Herald.*

DR. W. S. PICKARD of Burlingame, called to see us recently, making and exchanging notes with his highness.

DR. L. M. POWELL, a graduate of the University of Pennsylvania, and a former student of Dr. Alexander, will open an office on Kansas avenue.

DR. M. B. WARD will demonstrate on a subject the operation for circular enterorrhaphy at the June meeting of the Eastern Kansas. Everybody come.

CAFFIN in puerperal hemorrhage in doses of twenty centigrams repeated until reaction is established. It is said to act quicker than ergot and is a more powerful stimulant.

DR. L. REYNOLDS of Horton, looked in on us a few days ago. The doctor has just returned from the Chicago Polyclinic, where he has been taking a six weeks special course.

IT is right to advertise—the church bells advertise the worship of God. The earnest work of the faithful physician advertises his skill.—"By their works ye shall know them."

VENUS:—"Why cupid, you missed your aim that time."

Cupid:—"Yes, I always get mixed when a girl has both a dude and a poodle with her; but it makes little difference, my arrow hit the poodle."—*N. Y. Sun.*

YE editor spent a week in Washington in attendance on the American Medical Association, the Association of Medical Journalists and the American Medical College Association.

DRS. J. E. MINNEY and W. E. McVey visited Chicago last month doing the various colleges, polyclinics and infirmaries, and report a good time and Chicago as a busy medical center.

DON'T forget that the Eastern Kansas Medical Society embraces the entire State as her territory knowing no county lines. Let us make it the largest district society in the United States.

GENTLEMAN IN CLOTHING STORE:—Do you think this suit a fit? Proprietor: A vit, it youst vits beautiful. You go on de cars mit dot zuit some lady not make you stan, but giv you half de zeat.

CAUTION:—"Avoid arguments with the ladies. In spinning *yarns* among *silk* and *satin*, a man is sure to get *twisted*, and is in danger of getting *doubled*; and when a man is *doubled* and *twisted*, he may be *wound up.*

DELEGATES and members in attendance on the State Medical Society at Wichita from Topeka: Drs. Munn, Ward, McClintock, McGuire, Righter, Lindsay, Alexander, Bailey, O'Brien, Wall, McVey, Guibor, Pelton, Sheldon, Hogeboom and Minney.

THE A. T. & S. F. R. R. for comfort, quick time, accommodating officials and careful painstaking employès. If any trouble or misunderstanding about your ticket, call on or write to the genial accommodating George T. Nicholson, general passenger and ticket agent, Topeka, Kas., who will right all wrongs.

CONSUMPTION CURE.—Germain See places his patients for several hours daily in a hermetically closed chamber, into which compressed air, medicated with creosote and eucalyptol, is admitted.

CLEAN SURGERY, RESULT, SUCCESS.—Is this true? "A writer in Science says, the air does not become contaminated with bacteria unless they are allowed to dry. Recent investigations, he adds, have shown a smaller number of bacteria in the air of a well kept sewer than in that of a poorly ventilated schoolroom.

"MRS. VAN my dear!
I'm going to sleep, but wake me once a year;
Just once a year—remember! no mistake!
Watch for the week in May when laylocks blow,
For then the doctors meet and I must go."

Just once a year the doctor's worthy dame
Goes to the barn and shouts her husband's name,
Laylocks in bloom! 'tis the month of May—
The doctor's meeting is this blessed day,
And come what will, you know I heard you swear
You'd never miss it, but be always there.

N. B. Doctors of the Rip Van Winkle style sleep on and are not found at the medical societies of our day.—ED.

ARTIFICIAL teeth are successfully planted in gums. In recently extracted teeth and in places where a new cavity has to be dug for it in the healed up gums. They are made of porcelain and caoutchouc. Little holes are drilled into them and into these holes granulations grow from the alevoli which ossify and become firm.—*Exchange.*

Good authorities—about 66 per cent. of the above are failures.

DR. G. FRANK LYNDSTON says that in his opinion the benefits derived from spinal extension in locomotor ataxia are due to the increased circulation of the cord which it produces and not to any lengthening or stretching of the cord as is generally supposed.

DR. GEO. W. HOGEROOM, formerly surgeon-in-chief of the Santa Fe system has been reinstated to his former position, upon the resignation and retirement of Dr. Ransom. The doctor resumes his honors with his usual meekness.

THE report of Kansas State Insane Asylum at Ossawatomie, shows total number for two years, 782, discharged as restored 95. The institution is in a very crowded condition. New buildings are recommended.

REMIT $1.00 to the secretary Dr. R. S. Magee, Topeka, and become a member of the largest local society in the State. See program for next meeting in this number.

DR. W. E. ASHBY of Quenemo, was a visitor at our sanctum last month.

"HERE lies a Peck, which, some men say,
Was first of all a Peck of clay;
This, wrought with skill divine, while fresh
Became a curious Peck of flesh,
Through various forms its maker ran,
Then, adding breath, made Peck a man.
Full fifty years Peck felt life's troubles,
'Till death relieved a Peck of troubles,
Then fell poor Peck, as all things must,
And here he lies a Peck of dust."

THE bright and newsy St. Louis *Medical Mirror*, Dr. I. N. Love editor, comes to us this month loaded with good things, and richly illustrated.

OH honey is sweet, but the bee is stern
She works late and early her sweets to earn,
But bother not the busy, busy bee
Unless "three weeds" are nigh to thee.

AT a wedding near Louisville, Ky., seventy persons were poisoned, from which five died. —*Medical Progress.*

Beware of patent color cakes.

LITTLE THINGS FROM WASHINGTON, D. C.

THE State Boards of Health held their annual conference at the Ebbit House.

THE first and second weeks in May were notable weeks in Washington, D. C., for medical meetings.

THE American Medical Association held its forty-second annual meeting from May 5 to 9. The general sessions were held in Albaugh's theater.

THE sixteenth annual meeting of the American Academy of Medicine convened Saturday, May the 2d. The object of this association is to advance the standard of literary education for those who enter the medical profession.

DR. W. D. BIDWELL formerly of Leavenworth, Kas., and associate editor of the JOURMAL, has located at No. 918 Fourteenth street N. W., Washington, D. C. He has a magnificent suite of rooms and will be pleased to see the Kansas brethren at any time. The doctor will be thankful to the brethren who may speak to their patients coming to Washington of his whereabouts, and all who know him will have no hesitancy in recommending him to their patrons as a gentleman and able physician.

Excelsior.

Wichita—
Her physicians—
Have capped the climax.
Wichita—
Her people—
Cannot be outdone.
Wichita—
Her press—
Knows how to please.

NEVER

Before—in the history—of the State Medical Society, has it been so royally entertained as it was at Wichita May 13 to 16, 1891.

The JOURNAL had an inkling of the good time to come at the Wichita meeting and intimated as much, but Queen of Sheba-like the half had not been told us. The evening of the third day of the meeting (Friday) two hundred guests sat down to a banquet table a king might envy. Everything was there to satisfy the inner man and music to charm the ear, furnished by the Wichita quartette and string band. Dr. Fabrique was toast master and Dr. Foote welcomed the guests.

Sleep!

To sleep! to sleep! the long bright day is gone
And darkness rises from the fallen sun—
To sleep! To sleep!
Whatever thy joys they vanish with the day;
What'er thy griefs they fade away,
To sleep! To sleep!
Sleep mournful heart, and let the past be past;
Sleep happy soul! all life will sleep at last,
To sleep! To sleep!—TENNYSON.

"Koch's Lymph."

Has been subjected to tests of the most thorough character by observers all over the medical world, and while many unthinking persons are disposed to ridicule the discoverer, yet it seems that the position taken by the discoverer has been sustained in all essential particulars. As a means of diagnosis its value has been abundantly proven, while the reaction of the system by small doses is now considered by observers to be characteristic of tuberculosis, it is exceptionally found that the reaction takes place in persons accounted healthy. From the evidence, we should regard these cases with grave suspicion that tuberculosis might have been overlooked. While up to the present time we are not justified in regarding "tuberculin" as an infallible guide, yet it must be regarded as a substantial advance against the disease, and the "lymph" should only be used in slight or incipient cases.

THE *Northwestern Medical Journal* gives account of a monstrosity born to Charles and Sarah Miller in the village of Plato, McLead county, Minn. Two months previous to her expected confinement, a Jewish peddlar came to the house selling colored oleographs of the crucifixion. He was told to go about his business, he pressed his wares in such a manner that Mrs. Miller became exasperated and told him she would sooner have the devil in the house than a portrait of the Savior of man. The full meaning of her wish did not dawn on the woman until she saw the frightful creature to which she had given birth. This child or as many believe devil, is covered with hair all over its body nearly two inches long, the face and hands are covered with hair, the infant terrible had a full set of teeth at birth, and two sharp horns protruding from the forehead, his finger nails are like eagle's claws, could crawl from birth, crawls all over the rooms greedily devouring scraps of food, does not take the mother's breast—take it all in all it is certainly a little devil, with a tail eighteen inches long. If this freak lives it will be a source of revenue to its fortunate parents.

COUNTER prescribing has become so flagrant in Topeka as to demand that some action be taken by the physicians, in the near future. Some violators will have the privilege of giving an account of themselves for their lapses from duty in the matter of prescribing. A word to the wise is sufficient.

BOILS AND CARBUNCLES.—These should be treated heroically, a crucial incision should be made under cocaine and the wound packed with antiseptic gauze.

What We Saw at Wichita.

The display of Physician's Supplies at the Wichita meeting was unusually attractive and was the most extensive in the history of such meetings. There was a general expression of satisfaction by the representatives of the firms whose goods were so nicely displayed.

The arrangement of rooms was such that the exhibitors were afforded excellent advantages and at the same time the meeting was very little disturbed; strolling among the tables heavily loaded with various wares one must have felt there could be nothing more attractive to a physician, than that beautiful array of instruments, each apparently a magician's wand by which he is to drive away suffering and disease.

As we passed down the line we noticed our St. Louis friends, A.S. Aloe & Co., with a nice line of instruments and among their goods were many things new and attractive, which coaxed many a man to part with his hard earned shekels. In the same room Eli Lilly & Co., were handing out samples of pills and other preparations.

Next we found ourselves viewing a long table completely over-loaded with shining good and wondering from whence came ye, ye glittering gods of surgery? And behold! there was our friend Robinson with his coat off and his hair ruffled up ready for business, and from the evident smile of satisfaction on his countenance we were sure he must have convinced every one that Swift & Holliday have the largest stock of instruments in the State. As the crowd passed out with loads of tools, each man was pleased to accept from Mr. Remick a package of samples from Wm. R. Warren & Co.

In the next room we found Dr. Winn, the genial representative of Parke, Davis & Co. These enterprising gentlemen never fail to please the doctors when it can be done. At the rear part of the room stood a large punch bowl, presided over by a white aproned sable functionary, who after slaking your thirst with claret punch, was always ready to quiet your nerves with "a little of our malt ale," and as you turned around you were so pleasantly invited by a handsome lady to take a cup of beef cocoa, that we are sure no one refused; and here was Dr. Winn ready to convince you that Mosquera's Beef Cocoa was the most nutritious and the most easily digested food ever prepared, and we all went away with the idea that Dr. Winn was a splended fellow and very enthusiastic for the firm he represents.

Further down the hall we find a representative of John Wyeth & Bros., with a full line of triturates, etc. Hoff's Malt was also there, and after loading up with samples of triturates and taking a drink of malt, Mr. Porter the gentlemanly proprietor of the Physician's Supply Co. from Kansas City, was just waiting to make us an exceedingly low price on anything we wanted in his line, and an exhaustive line it was too. There were rolls and rolls of dressings, piles of splints and rows of instruments.

Following the crowd around we soon found ourselves waiting our turn to try the electric breeze from the McIntosh electric machine and after viewing all sorts of electric apparatus, the manly form of Willis H. Davis from Keokuk, Iowa, loomed up before us; and from the constant click of his type writer as he wrote out his orders, we have no doubt he was well repaid for his trouble. Then we were reminded of the babies at home and stopped to smell the beautiful roses and take a sample of Mellin's Food. We could not spare much time for the babies for Mr. Stevenson was anxious to supply us with an Acme Atomizer from the A. M. Leslie Co., St. Louis, and show us many other staple articles in which we must no doubt have invested, if the liquid refreshments had not already washed away our wealth. After taking a copy of the *New York Record* and trying to persuade the Harvard chairman to make us a present of the instrument cabinet, we took our weary limbs over to the Carey to prepare for the coming festivities.

PROF. W. W. SEYMORE of Troy, N. Y., in an article read before the New York Medical Society, on the "Treatment of Gall-Stones," gives as his conclusion, that it is hopeless to expect to dissolve gall-stones in the gall bladder. But it seems from his paper that no

effort has been made except by internal medication. It is well known that gall-stones can be readily dissolved in the test tube, the cholesterin melts readily when placed in chloroform, and in a majority of gall-stones, when the cholesterin is disolved the stone is disorganized, to such an extent that no trouble is to be feared from the debris. In a late number of the KANSAS MEDICAL JOURNAL, Dr. S. G. Stewart of Topeka, gave an account of a method which up to that time had not been practiced, viz.: The hypodermatic injection of chloroform into the gall bladder, for relief of pain and for the purpose of dissolving the stones in situ. Some experiments were performed on animals for the purpose of determining the effects of chloroform on the peritoneum, and the consequences if the chloroform should be thrown into the liver, these experiments demonstrated the safety of the procedure. Dr. Stewart has treated a number of cases by the hypodermatic injection of chloroform into the gall sac. Other physicians are now practicing the method and with satisfactory results so far as reported.

BOOK REVIEWS.

HEREDITY, HEALTH AND PERSONAL BEAUTY by J. V. Shoemaker, A. M., M. D. Cloth $2.50, Mor. $3.50. Published by F. A. Davis, Philadelphia, Pa.

The above work has been read with a good deal of pleasure. It is an admirable illustration of the manner in which knowledge may be made attractive, forcing upon the reader instruction while leading him "in green pastures and beside still waters." Thus, page 24, "We have hobbled the horses to allow them to graze, with restricted liberty, and then becoming cook for the nonce, have helped prepare viands in the style of Homes heroes. Then we have retired to our blankets with a profound sense of comfort not experienced in many a farm house. There was at least fresh air. Oh! what a boon is fresh air! and the sunshine, perhaps, would greet us in the morning, what healing there is in these two ministers of life! This is a savagery, but it is the sweetest phase of savagery; savagery without its famines and its baleful passions; savagery with the sweetness of the earth around, under the pure canopy of heaven, with its twinkling stars. It is the kind of savagery that only the highest civilization can enjoy, compared with the barbarousness of the semi-civilization of life that shuts out by the walls of a house what seeks entrance as some of the kindest gifts of heaven, it is luxury; digestion waits on appetite; the whole physical and mental being is exalted and in touch with something higher than ordinary life."

Its author seems an humble man who doubts if this space, which is but an atom compared with many of the worlds that fill the boundless space, was made for the special delectation of man, who is but a microbe compared with the mighty men, who perchance dwell upon the mightier worlds that fill immensity; doubting whether sun, moon and stars were hung in the etherial vault merely for his delectation; doubting even that the myriad forms about him were created solely for his enjoyment, seeing that "The familiarity of insects, with the delicate cuticle of man is not conducive to his desire for being sole lord of creation, seeing that the insignificant creatures drive him out of some parts of the world, and that his precautions must be ceaseless to keep them even out of his bed."

The book does not impress one with the belief that the author is sufficiently orthodox to hold that Jonah swallowed the whale, or that by heredity any of his descendants were equal to a similar feat, and yet when he eliminates what he may call its mythical history, he evidently considers *the book* alive with an inspiration that develops health and beauty in the soul, of which the highest physical beauty is only a reflex.

The work is full of advice that will tend to the attainment of grace and beauty, and closes with a chapter of directions for relieving chaps and blotches and scars and humors, etc., and formulas for artificial methods of securing and restoring beauty.

PRINCIPLES OF SURGERY.—By N. Senn, M. D., Ph. D., professor of the Principles and Practice of Surgery and Clinical Surgery in the Rush Medical College Chicago, Illinois. Prof. of Surgery in the Chicago Polyclinic, etc., etc. In one octavo volume of 600 pages, with 109 illustrations. Cloth, $4.50, sheep $5.50 net. Philadelphia, F. A. Davis.

The best work on surgery that has recently come under my notice. Every chapter is a

mine of information containing all the recent advances on the subjects presented in such a systematic, instructive and entertaining style that the reader will not willingly lay it aside, but will read and re-read with pleasure and profit.

Heretofore the works on this subject, though exhaustive and complete have devoted much space to practice of surgery, while the foundation of our knowledge contained in the principles of surgery have held but a secondary place, or have been given as though the author had studied Pathology in his boyhood.

The Surgical Pathology of to-day is so different from that of a few years ago that the standard works on Surgery, American and English, are filled with effete matter. This fact applies equally well to those works that have been recently written, except in rare instances where the author has cut the Gordian Knot by wholly ignoring, or at most only touching upon the Principles of Surgery and jumping immediately into operative details.

I would advise every physician to secure a copy of this excellent work, first having decided that he will make a careful study of it, as it well deserves to be studied and digested.

The publishers are to be complimented on the production of a book so well and clearly printed on good paper, so that although the type at first seems small it is very easily read.

J. C. McCLINTOCK.

MEDICAL MISCELLANY.

Office Rules.

FOR LADIES.

RULE 1.—As soon as you get seated look the doctor over carefully. See if his buttons are all tight or loose, and if his barber and boot-black have both been on hand. Notice very carefully if his shirt is clean. If he has a gold watch (every doctor should have at least two.) If he has any grey hairs and if his coat is intact at elbows. You needn't look at his knees for doctors don't wear out that side of their pants. When your inventory is complete you are ready for rule 2.

RULE 2.—You wheel your chair to a square front and in as startling tone as you can command say "Doctor how long have you practiced medicine? What College are you a graduate of? Why didn't you open an office near the corner of Wall Street, New York? What is your age next Thanksgiving? That you know touches the doctor's heart, he yet feels how grateful his little children are for the turkey and mince pies they didn't get." Are you married? Is your wife an Irish woman? Has she big feet? Do her ears match? Now mark? Does she wear diamonds at receptions?

RULE 3.—Let your victim catch his breath while you survey the office and surroundings. Then go at him again with—what kind of disease are you most familiar with? How many patients visit you? How large is your practice? What ladies have you treated, and what ailed them? "Doctor is it not possible that that spell of sickness Miss Dogood had was caused by more than getting caught out in the rain?" While you ask that question keep your eyes riveted on his face to see if he changes expression. Ask him if he had heard that Parson Solemn said "he was a little too sweet with lady patients to suit his ideas?" Ask him if he thinks it is wrong to get rid of certain things the first two or three months? And also ask what medicines and measures will likely be useful in that direction? Ask him if he knew that Deacon Pigsalter said, "that he would not let him treat a sick dog for him? Ask him how many amputations he has performed? Ask him if he knew that Mrs. Nasey said that Mrs. Poormen's child died with the colic instead of diphtheria and bad sanitary surroundings as he had said?

RULE 4.—After you have next asked "how many instruments the doctor has, and what they cost," tell him you have a bad tooth, ask him to see if he thinks he can draw it. Get him to give you a glass of wine to steady your nerves, and put cocaine around it and see if your heart is all right, and then, when he has all of his forceps out and has got all ready to apply a pair, all at once conclude you will wait till next time it aches." Then get on your hat and gracefully step out of the office. As you walk homeward you can every few steps smother a laugh as you think what an angel

that doctor thinks you are, as he slowly but sadly puts away his tools.

FOR GENTLEMEN.

RULE 1.—Be sure and spit on the floor; that is what we have it for, and be very careful and get plenty of juice around the stove legs. The owner has nothing else to do but clean up.

RULE 2.—Be sure to light your pipe if you see a lady coming or after she comes in the office, and as you move try and get close to her, so you can give her a good second-handed smoke, easy to her, and without effort on your part. The ladies will enjoy this, especially if it is seasoned with lots of profanity and a good strong pipe. They also enjoy dead tobacco smoke in an operating room, especially if it is necessary to use ether or chloroform.

RULE 3.—Always be sure to turn to the doctor after a lady leaves his consulting room and say, "Doctor that woman is a clipper," I wish I were a doctor, I tell you! Also he is sure to ask him, "if there isn't something wrong in the Danish coast? Doctors have nothing else to do but answer those questions, and it is their *placc* to keep the *public* posted, and of course ladies who have a little "inside history" that they *want the world to know*, go to the doctors office for that purpose.

RULE 4.—If you come in the office and find the doctor very busy ask him to wait on you right away, convey to the other patients that you have an under sinch on that doctor, and he must obey forthwith. If any instruments are out of the case be sure to ask what they are and handle them all over at least twice. It does the doctors soul good to go all over and disinfect them after you, besides it gives him practice in that line, and practice makes perfect.

FLORISANT, MO., April 21, 1891.
Antikamnia Chemical Company, St. Louis, Mo.

GENTLEMEN:—I have been using Antikamnia for the past ten months, and up to within the past month, uniformly obtained results which justified in every particular, the claims made for your product. In fact its usefulness to me was so completely established, that I had come to regard it as an absolute "*sine qua non*" in my practice. Within the past month I have had some inexplicable failures in cases where Antikamnia never before disappointed.

Upon carefully reviewing the subject, I find that during the entire period I purchased direct from you, I had no failures to record. Latterly however, I have purchased from convenient retailers.

Within the past two or three months, I have noticed in various medical journals, several alleged formulæ for Antikamnia, varying so materially, that their very disagreement successfully establishes their falsity.

I am led to believe that some druggists are supplying a compound made according to one or the other of these formulæ, and dispensing it as Antikamia. I wish you would look into this. When I prescribe *Antikamnia* I want *Antikamnia* and nothing else.

Very truly yours,
G. C. EGGERS, JR., M. D.

ELIXIR THREE CHLORIDES.—The formula of this compound will immediately suggest itself to the mind of the thoughtful physician as one more readily meeting the therapeutical indications in Chronical Malarial poisoning than any yet devised.

In the Three Chlorides Elixir we possess a remedy which meets the very fundamental indications in this so common affection.

Yours respectfully,
RENZ & HENRY.

FARMERS, KY., April 10, 1891.
Antikamnia Chemical Company, St. Louis, Mo.

GENTLEMEN—Since I have been using Antikamnia, it has not failed me in a single case. I have never, in 36 years practice, met with a surer specific for pain.

Yours truly,
W. L. RAGLAND, M. D.

Prof. of Genito-Urinary Organs St. Louis Med. College
ST. LOUIS, June 21, 1888.

For a long while I have been in the habit of prescribing fluid extract of viburnum, prunifolium, in those painful, functional disorders of the uterus and appendages occurring in cases that come under my care for renal and vesical diseases. My results have been satisfactory. Of late, I have given the remedy in the form of DIOVIBURNIA, as prepared by a well-know St. Louis Pharmacist, and the results are equally good, perhaps better; and the method of administration vast y superior.

JOHN R. BRYSON.